Table of Contents

1.	INTRODUCTION	3
	1.1 Purpose and Scope	3
	1.2 Glossary	3
	1.2.1Acronyms	
	1.2.2Definitions	4
	1.3 References	5
2.	VALIDS	7
	2.1 Relationship to CIP Specification	
	2.2 Valids Background	
	2.2.1Global Change Master Directory (GCMD)	
	2.2.2Information Management System (IMS)	
	2.2.3ECS	
	2.2.4CEO Metadata User Guide	
	2.2.5FGDC	
	2.3 Valids Summary	
	2.4 Valids Maintenance	
	2.4.1ICS Valids Identification and Collaboration Procedure	
	2.4.2ICS Valid Values Control List Update Procedure	
3.	VALIDS (ALPHABETICAL ORDER)	
<i>J</i> .	3.1 AcquisitionStation	
	3.2 AcquisitionStatus	
	3.3 ArchivingCentreId	
	3.4 BandMode	
	3.5 BrowseCompression	
	3.6 BrowseFormat	
	3.7 CollectionCategory	
	3.8 CollectionHierarchyCategory	
	3.9 CollectionHierarchyPosition.	
	3.10 Country	
	3.11 DataCentreName	
	3.12 GeoSpatialForm	
	3.13 GridCoordinateSystemName	
	3.14 GroupId	
	3.15 InstrumentIdentifier/InstrumentName	
	3.16 ItemDeliveryMethod	
	3.17 ItemDescriptorLanguage/ ItemLanguage	
	3.18 LocalAttributeValueSyntax	
	3.19 LocalUseAttributeFlag	
	3.20 MapProjectionName	
	3.21 MissionId	
	3.22 PassType	
	3.23 PeriodCycleUnit	
	3.24 PeriodDurationUnit	
	3.25 ProcessingCentre	
	3.26 ProcessingLevelId	
	3.27 ProcessingType	12

Catalogue Interoperability Protocol - (CIP) Specification - Valids 9 February CEOS/WGISS/PTT/CIP-Valids, Issue 0.1		
3.28 ProductCompression		
3.29 ProductFormat		
3.30 ProductMedium	74	
3.31 ProjectName		
3.32 Role		
3.33 Scale		
3.34 ScienceReviewStatus		
3.35 SensorIdentifier/SensorName		
3.36 SensorMode		
3.37 SpatialKeyword		
3.38 SpatialKeywordsThesaurus		
3.39 SpatialResolution		
3.40 StorageMedium		
3.41 TemporalKeyword		
3.42 TemporalKeywordsThesaurus		
3.43 TemporalResolution		
3.44 ThemeKeyword		
3.45 ThemeKeywordsThesaurus		
3.46 UpdateFrequency		

List of Figures

List of Tables

1. INTRODUCTION

1.1 Purpose and Scope

This is the Catalogue Interoperability Protocol (CIP) Specification –Valids document. This document was developed under the auspices of the Committee on Earth Observation Satellites (CEOS) - Working Group on Information Systems and Services (WGISS) - Protocol Task Team (PTT). A complete list of organisations participating in the PTT is provided in the PTT Terms of Reference [PTT].

This document was developed in conjunction to the CIP specification [CIP-B].

###Valids are keywords that are obtained from a controlled list of terms.

They play an important role in achieving catalogue interoperability by providing a standard set of values for attributes that are understood by all participating catalogues.

Use of valids in the CINTEX experiment.

A number of international standardisation efforts already exist for the definition of valids. The PTT decided not to fe-invent the wheel'but to profit from these standards by re-using existing valid value control lists whenever possible. For the CIP valids all the sources that have used for their definition are stated.

The maintenance of valids raises two important issues:

What procedures are needed for the co-ordination with other standardisation groups

What rules and procedures need to be established for CIP only valids

1.2 Glossary

1.2.1 Acronyms

CEO	Centre for Earth Observation
CEOS	Committee on Earth Observation Satellites
CIP	Catalogue Interoperability Protocol
DIF	Directory Interchange Format
ECS	EOSDIS Core System
EO	Earth Observation
ESA	European Space Agency
GCMD	Global Change Master Directory
ICS	Interoperable Catalogue System
IMS	Information Management System
ISO	International Standards Organisation
NASA	National Aeronautics And Space Administration
PTT	Protocol Task Team
WGISS	Working Group on Information Systems and Services

1.2.2 Definitions

Attribute	An attribute is one of the features of an EO collection or product that is of interest to the user that can be presented or searched on using the CIP. For example, SATELLITE IDENTIFIER, INSTRUMENT, LATITUDE, etc.
	A set of special attributes, such as MEANING, UNITS, ALIAS, etc., is used to define the meaning of the attributes in a common and unambiguous manner. These attributes are called semantic attributes, The semantic attributes are interchanged by the CIP in the process of passing definitions of attributes between a CIP client and the Retrieval Manager.
Browse data	Browse data is a derived representation or summary of data attributes that is provided by a catalogue system to facilitate user selection of EO products. The form and content of browse data is dependent on the nature of the EO data and the data selection criteria necessary for a science discipline to evaluate the EO data. A given EO product may be represented by several different browse data. For example with multi-channel data, browse data from one o several different channels or combinations of different channels may be required in order to represent different geophysical parameters and/or selection criteria. In addition a single large EO product may be represented by multiple browse data which depict specific regions or subsections of the EO product.
	Browse data is produced from the application of a browse service on an EO product, either dynamically at the time the browse data is requested by a user or as output which is stored as a system resource for retrieval at a later time. Examples of browse data include; 1 bit attribute maps (i.e., cloud mask), JPEG compressed images, subsampled reduced resolution images, data statistics and histograms).
Catalogue system	A catalogue system provides services such as inventory, browse, directory, order and guide, which may be supplemented by further services, but should contain at a minimum, inventory. The CIP is the protocol that shall enable the many services (but guide) of many catalogue systems to interoperate. Usually a catalogue system resides at a particular agency or data provider facility.
Collection	A grouping of item descriptors that have commonality. A collection consists of a number of attributes that describe the collective contents of the collection, the values of these attributes can then be searched on to select items of interest to the user. Collections also have members; these are the unique identifiers of the items that are grouped by the collection rather than their collective descriptions. As collection members can be identifiers of other collections, a hierarchy ¹ of collections and product members can be established, therefore permitting a flexible and powerful organisation of data
Interoperability	Interoperability can be defined as the capability of the user interface and administrative software of one instance of a catalogue service to interact with other instances of catalogue services. Within CEOS, four levels of interoperability have been identified:
	A user accessing one service is routed directly to another related service. For example, a user is routed from one inventory service to another to extend a search, the user interface differences between the routed services are not hidden from the user.
	Similar to level 2 except that a user accessing one service is routed directly to another service and contextual information us also transmitted which may include information on the user., their interests and their activities at the original service. For example, search criteria can be passed, translated and loaded as a search query for the user to activate. At this level the user is still exposed to the differences between the two services, but related information can be shared.
	At level 3, the user is hidden from the specific operations of each service. A query is routed automatically between services and the results from each returned to the original access point. At this level (and levels 1 and 2) each service is likely to use a different data model and the query may need translation to reflect these differences. Similarly, the query results may also reflect the individual service data model and may or may not be translated before they are presented to the user. At this level, the user is no longer exposed to the differences between the service operations.
	At the highest level of interoperability, a single data model is assumed to apply to all services within an interoperable catalogue system. This a query entered at one service can be executed using a single distributed database. This level of interoperability permits direct database operations such as unions and joins between metadata held by different catalogue services and for operations. The interoperable system is thus seen as a single database system by the user.
	Within the CIP, interoperability includes the standardisation of dynamic client configuration to handle variable attributes from different catalogue systems, standardisation of attributes for common services, identification of common order procedures, etc. so that catalogue sites at different agencies appear to the user as a single site.
Interoperable catalogue system	A network of catalogue systems which provide users a view on each other. Each catalogue system is free to decide which collections of other catalogue systems are visible to its users, although some guidelines will have to be followed to ensure compatibility between collections and support commonality. Each individual catalogue system acts as an access point to the Interoperable Catalogue System and is generally served by a Retrieval Manager.

1

Inventory	An inventory holds information about the data held in an archive. An inventory and archive should not be assumed to be the same thing, although they may in some cases be synonymous.
	An inventory is effectively a register of the EO data that is available for retrieval; it holds inventory entries which describe the EO products themselves. These inventory entries should not be assumed to have a one-to-one relationship with the individual data items held in an archive as a product may be formed by combinations of archive data items after further processing and in different formats. Likewise there may not be a one-to-one relationship between the inventory entry and the delivered EO product, as the user may specify a number of parameters within the order process that can result in a number of products from a single identified inventory entry.
	Further, the relationship between inventory entries and archive data items may be, in some cases, less concrete as inventory entries may also exist for data that is not as yet in the archive, for instance, the data has not yet been acquired by the archive system. For example, the ESA ERS-1/2 system does not distinguish between archived data and data yet to be acquired. In the ERS-1/2 system, the products ordered by a user is labelled an Observation Set' such that the observation could have occurred or is yet to occur.
	Whilst inventories do and will exist they are not modelled explicitly within the CIP domain. This is because the CIP domain sees each inventory entry as a separate product descriptor and never accesses data as a single complete inventory. Collections can be established that directly map to existing inventories, but the collection concept is not restricted to such groupings only.
	Therefore, inventories will still exist physically but not at the logical level in the CIP model.
Inventory entry	The term inventory entry is not used explicitly within the CIP domain model and it is only used within historical perspectives in the document as it has been superseded by the collection'and product descriptor'terminology. Previously within CEOS work it was used to represent a description of an inventory item (in general mapping on to an EO product) enabling product identification and retrieval.
	In the CIP model it is mapped to a product descriptor, primarily as the use of inventory entry logically makes little sense without the use of the term inventory.
Product data	A unique aggregation of data generated from information held in, or to be held in an archive (for predicted products). It can be located and retrieved by a user via the CIP, possibly following further processing, such as map projection, sub-setting, band selection, etc., after or during extraction of the raw data as stored in the archive.
	Whilst the data may be stored in an archive in a quite different format to that delivered to the user, the user is not normally aware of this. Further, the data may not be present in the archive at the time of order or may be generated on the fly as a result of the order. The user only sees, from item descriptors, product data that may be delivered. Of course there may be further information that is required which will change the format of delivery, but to the user it is still the same product data.
	The CIP does not prevent that the same archive item being held at different facilities (or providers), but it is assumed that each distinct item will be described by a different product descriptor.
Query	There are two types of query:
	Search query: a search query can be used to search a number of item descriptors as identified by the target of the query. The query acts as a filter on the item descriptors, therefore producing a more limited list of item descriptors. The matches that are made are returned to the user. A search query is not restricted to a single search query language but the unique names of the item descriptors should be supported by the search query language.
	Status query: a status query is directed towards a Retrieval Manager to check the status of a previous request, such as an on-going order or an on-going search query.
	There are other services that can act upon queries, such as cancel query, suspend query, etc., these control the flow of information between user and Retrieval Manager.
Valids	Valids are keywords that belong to a list of controlled terms

1.3 References

- [CIP-B] *Catalogue Interoperability Protocol (CIP) Specification Release B*, CEOS/WGISS/PTT/CIP-B, Issue 2.4, ###, Committee on Earth Observation Satellites
- [ECS] ECS Core Metadata Standard Release 2.0, 420-TP-001-005, December 1994, Hughes Applied Information Systems
- [GCMD] Global Change Master Directory, NASA/GSFC, http://gcmd.gsfc.nasa.gov/
- [PTT] PTT Terms of Reference, http://ceos.ccrs.nrcan.gc.ca/taskteam/cip.html
- [FGDC] Contents Standard for Digital Geospatial Metadata, June 8, 1994, Federal Geographic Data Committee

Page 6of 117

[CEO] Development and Co-ordination of Valids for Element types of the CEO Enabling Services -Final Report , Issue 2.0, October 1997, TR/971712tr

[IMS] ###

[ISO-L]###

[ISO-C] ###

2. Valids

2.1 Relationship to CIP Specification

This document complements the CIP specification [CIP-B] by defining lists of controlled terms that are available for specific use attributes and retrieval elements. Use attributes are defined in Annex A.1 and the retrieval element in Annex B of the CIP Specification.

It is expected that the CIP Valids document is an involving document, since over the life time of CIP based systems the number of valids will likely increase in order to satisfy user needs.

2.2 Valids Background

In order not to fe-invent the wheel," the PTT decided to profit from existing standardisation efforts for the definition of the CIP valids. Using existing valids offers several advantages:

- interoperability with the other systems is facilitated
- the valids are already tested and accepted by users

The CIP Valids are defined using the following sources: GCMD [GCMD], ECS [ECS], IMS [IMS], CEO Metadata [CEO], FGDC [FGSC] and ISO standards [ISO-L] and [ISO-C].

Here follows a short description of each of the sources that were used for the CIP Valids.

2.2.1 Global Change Master Directory (GCMD)

NASA's Global Change Master Directory is a comprehensive source of information about satellite and in situ Earth science data, with broad coverage of the atmosphere, hydrosphere, oceans, solid Earth, and biosphere. The GCMD is the American Co-ordinating Node of the Committee on Earth Observation Satellites International Directory Network (CEOS IDN) and is a participant in the U.S. Global Change Research Program (USGCRP).

Varied types of resources can be accessed through this server which provides flat sets of keywords for Data centres, Locations, Projects or Campaigns, Sensors, Data sources and a four level list of keywords for Parameters. Some elements are controlled more tightly than others, namely Parameters, Location names, Sources and Sensors.

2.2.2 Information Management System (IMS)

The Earth Observing System (EOS), part of NASA's Mission to Planet Earth, is NASA's major contribution to the Global Change Research Program (GCRP). The Data and Information System component (EOSDIS) has been designed as a distributed system to support archival and distribution of data at multiple data centres. These centres are connected by an Information Management System (IMS) which provides an interface for "one stop shopping" for Earth science data, allowing users to search for and order data from multiple data centres in a single session.

This server provides general flat sets of keywords (or filters) for Parameters, Sensors, Data centres and Data sources and detailed flat sets of keywords for Parameters, Data sets, Sensors, Data centres, Data sources, Campaigns, Processing levels, Platforms and Instruments. The IMS has recently adopted the Global Change Master Directory keywords for geophysical parameter as the searchable valids in the system.

2.2.3 ECS

The Earth Observing System Data and Information System (EOSDIS) is a NASA-sponsored open, distributed information system that will manage the data and information from a variety of pre-EOS and EOS-era Earth observation satellites, as well as data from related Earth science field measurement programs and other data essential for the interpretation of these measurements. EOSDIS will provide end-to-end services from EOS instrument data collection to science data processing to full access to EOS and other Earth science data holdings.

The EOSDIS Core System (ECS) is the infrastructure of EOSDIS. ECS will provide scientists and other users a broad range of desk top services from 9 science data centers - known as the Distributed Active Archive Centers (DAACs).

2.2.4 CEO Metadata User Guide

The Centre for Earth Observation (CEO) of the European Commission started activities on metadata as a response to the strong requirement of European EO users, who mentioned their confusion due to the large number of existing standards and initiatives and their wish that CEO provides recommendations about metadata description in harmony with the existing programmes.

The CEO metadata approach consists in identifying several types of basic resources, each one being described by a well defined number of information or elements. An element may be simple or compound (with a structure including sub-elements), mandatory or optional depending on the fact that providing a value is mandatory or not, and repeatable or not. Depending on the element type, the assigned value must be selected within a predefined controlled list of keywords or valids [CEO]. This approach is currently used for the development of the CEO INFEO.

2.2.5 FGDC

The Federal Geographic Data Committee (FGDC) initiated work on the standard in June, 1992, through a forum on geospatial metadata and finalised it by June 1994.

The FGDC standard [FGDC] specifies the information content of metadata for a set of digital geospatial data. The purpose of the standard is to provide a common set of terminology and definitions for concepts related to these metadata. Metadata are data about the content, quality, condition, and other characteristics of data.

The major uses of metadata, as seen by the FGDC forum, are:

- to maintain an organization's internal investment in geospatial data,
- to provide information about an organization's data holdings to data catalogues, clearinghouses, and brokerages, and
- to provide information needed to process and interpret data to be received through a transfer from an external source.

The information included in the standard was selected based on four roles that metadata play:

- availability -- data needed to determine the sets of data that exist for a geographic location.
- fitness for use -- data needed to determine if a set of data meets a specific need.
- access -- data needed to acquire an identified set of data.
- transfer -- data needed to process and use a set of data.

2.3 Valids Summary

The table below summarises all terms (use attributes/schema elements) for which controlled keywords (valids) are needed in the CIP. It highlights if the term is used in the product descriptor, collection descriptor or in both. In the columns C-Use Attribute'(collection) and P-Use Attribute'(product) indicate whether the term is searchable.

Term	Description	C-Use Attribute	P-Use Attribute	Product Descriptor	Collection Descriptor
AcquisitionStation	Identifier of the station, which will or has received the data.			Y	N
AcquisitionStatus	Status of the acquisition, e.g. acquired' etc.			Y	N
ArchivingCentreId	Unique code for the agency/data centre holding the data. Several copies of a single pass can exist and each archive will be listed as a possible source of that pass.	Y	Y	Y	Y
BandMode	Set of flags describing the status of activity of each band (active or not active).			Y	Y
BrowseCompression	Description of the method used for compression of the browse data.			Y	Y
BrowseFormat	Format of the browse data, e.g. GIF.			Y	Y
CollectionCategory	Category of a collection.	Y		N	Y
CollectionHierarchyCategory	Category of the hierarchy.	Y		N	Y
CollectionHierarchyPosition	Position of the collection in the collection hierarchy, i.e. terminal'or non-terminal'.	Y		N	Y
Country	The country of the address.			N	Y
DataCentreName	The data centre name is composed of both short and long versions in the same manner as short and long sensor and data source names.	Y		N	Y
GeospatialForm	A characterisation of the type of product, e.g. satellite image or map.	Y		N	Y
GridCoordinateSystemName	A plane-rectangular coordinate system usually based on, and mathematically adjusted to, a map projection so that geographic positions can be readily transformed to and from plane coordinates.			Y	Y
GroupId	Identification of the user groups having access to specific options, e.g. for product order options may differ for each user group.	Y	Y	Y	Y
InstrumentIdentifier	A short identifier (acronym) for the instrument.	Y	Y	Y	Y
InstrumentName	A text string (i.e. not an acronym) defining the instrument.			Y	Y
ItemDeliveryMethod	The method by which an item is delivered.			Y	Y
ItemDescriptorLanguage	The language in which the item descriptor is defined.	Y	Y	Y	Y
ItemLanguage	The language in which any textual information within the deliverable item is defined.		Y	Y	N
LocalAttributeValueSyntax	Value syntax (i.e. type) of a local attribute.			N	Y
LocalUseAttributeFlag	Flag indicating whether:	Y		N	Y
	a collection has no local attributes (value = 0)				
	a collection has local attributes defined within the collection descriptor (value = 1)				
	a collection has local attributes defined in the				

Term	Description	C-Use Attribute	P-Use Attribute	Product Descriptor	Collection Descriptor
	Explain database (value = 2)				
MapProjectionName	Name of the map projection			Y	Y
MissionId	Unique code for the satellite/mission.	Y	Y	Y	Y
PassType	Type of a satellite pass, i.e. ascending of			Y	Y
PeriodCycleUnit	The unit specification of the cycle of the period, e.g. year, millisecond.			Y	Y
PeriodDurationUnit	The unit specification of the duration of the period, e.g. year, millisecond.			Y	Y
ProcessingCentre	Contains the short name of the data centre that has generated the data.	Y	Y	N	Y
ProcessingLevelId	This parameter identifies the processing level of the data in the archive.	Y		N	Y
ProcessingType	Type of processing, e.g. colour image product, GTC with DTM information.			Y	Y
ProductCompression	Compression algorithm that can be applied when the data product is delivered.			Y	Y
ProductFormat	Format in which the data product is available, e.g. CEOS Superstructure, HDF, SDTS.			Y	Y
ProductMedium	Medium on which the product is available, e.g. CD-ROM, Exabyte.	Y	Y	Y	Y
ProjectName	This element should be supplied when there is a relationship of the collection to a campaign or project (e.g. WOCE, FIRE, PROMIS, etc.). Campaigns or projects usually encompass data from a number of diverse data sources. The element includes both short and long names.	Y		Y	Y
Role	The role of a person for the collection	Y		N	Y
Scale	The scaling used for the data (e.g. map).	Y	Y	Y	Y
ScienceReviewStatus	Type of review which occurred on the Science Review Date.	Y		N	Y
SensorIdentifier	A mnemonic or otherwise abbreviated version (acronym) for the sensor.	Y	Y	Y	Y
SensorMode	Specific mode of the sensor.			Y	Y
SensorName	A text string (not acronym) defining the sensor name.			Y	Y
SpatialKeyword	The spatial keywords provide the capability of selecting place names to be used as search parameters, usually as an alternative to specifying latitudes and longitudes (which may not apply in some disciplines). For example, Tropical Region, Atlantic Ocean.	Y		N	Y
SpatialKeywordsThesaurus	Reference to the thesaurus used for the spatial keywords.			N	Y
SpatialResolution	The minimum distance between two adjacent geographic points.	Y	Y	Y	Y
StorageMedium	Type of medium on which the data is currently stored.			N	Y
TemporalKeyword	The name of a time period covered by a	Y		N	Y
TemporalKeywordsThesauru s	Reference to the thesaurus used for the temporal keywords.			N	Y
TemporalResolution	The temporal frequency of data sampled.			Y	Y
ThemeKeyword	Controlled keyword list to define the theme (e.g.	Y		N	Y

Term	Description	C-Use Attribute	P-Use Attribute	Product Descriptor	Collection Descriptor
	discipline, topic) covered by a collection.				
ThemeKeywordsThesaurus	Reference to the thesaurus used for the theme keywords.			N	Y
UpdateFrequency	The frequency with which changes and additions are made to the data set after the initial data set is completed.			N	Y

###Note: UpdateFrequency is currently defined as String and nor as ENUM in the CIP 2.3 specification. It is recommend to change this.

2.4 Valids Maintenance

The CIP Valid Values Control List is a composite of various agencies controlled list of values for specified attributes, coupled with CIP specific attribute value requirements. Because of this reliance on various agencies controlled list of values for approximately 80% of the CIP valid values, the CIP control list will require continual collaboration with the respective source agencies. Therefore, the overall objective of this section of the valids document is to provide a strategy which will require a degree of collaboration with source agencies and ICS Sites for supporting the maintenance and control of a CIP valid value control list. Towards this objective two procedures have been identified;

- Valids Identification and Collaboration, and
- Valid Values Control List Update.

Each of these activities are discussed below.

2.4.1 ICS Valids Identification and Collaboration Procedure

This is the first step in maintaining the CIP Valids Control List. During this activity valid values will be identified, evaluated and distributed to Source Agencies and ICS Sites for review and comment. In support of this activity three tasks have been identified and presented below. Within each task a brief description of the subtasks is also provided.

TASK 1: Collecting/Distributing Valid Value Requirements/Recommendations

• <u>Conduct periodic valids review/solicitation meetings</u>: The purpose of these meetings are to review the current CIP control list of valids for the purpose of validating that the values still support interoperability, and to address any pending recommendations for eliminating existing values or incorporating new values.

<u>Evaluate requests for new or change values</u>: Because the valids for the Use Attributes play a significant role in ensuring interoperability it is envisioned that there will be a constant flow of requests for incorporating new valids or eliminating existing valids. Additionally, because of the importance of this role, each request that is received will undergo a preliminary evaluation using the following criteria.

Supports or furthers interoperability: The following question will be answered and the answer recorded during this evaluation: Will the request support or further the tenets of ICS Interoperability?" How or How Not. i.e. "If a request is received to delete a valid value from

the controlled list that several ICS sites are currently using, then a preliminary determination, regarding this request, should be to collaborate with the affected sites prior to taking any further action.

Scientific validity: This evaluation criteria will focus on the following primary question: Its the request for a new/changed value scientifically correct? I.e. If the request is to add a new value to the control list for the Spatial Keyword use attribute, and it is determined that the suggested value is not spatially valid, then the preliminary determination would be to return the request to the requester.

Consolidate inputs for new or changed values

Periodically (TBD) a consolidated package of recommendations will be distributed to ICS Sites for review. This package will contain the original request and preliminary recommendations from review/solicitation meetings and evaluations.

TASK 2: Collaborating with Source Agencies

It will be necessary to provide requests to Source Agencies/Committees to incorporate CIP specific value recommendations in the Agency's control list. This structure/procedure for submitting the request may vary from agency to agency. Therefore the nature and complexity of this task may require extensive collaboration with the source agency.

Participation in the Source Agency's Valids Committees will be necessary in order to maintain the integrity of the control list of values. The degree of participation again will vary from agency to agency. However as a minimum it is envisioned that it will be necessary to monitor on a periodic basis the agency's control list of values. The intent of this task is to ensure that the changes/additions to the valids control list are recognized and adopted by ICS.

TASK 3: Approval Notification

This task ensure that the ICS Sites are notified of the approved recommendations/deletions/changes to the CIP Valids Controlled List. This notification will serve as a directive to perform the following procedures.

2.4.2 ICS Valid Values Control List Update Procedure

TASK 1: Procedure for updating Collections Database(CDB)

The Collections Database captures the actual instances of the valid values for the attributes. It is not anticipated that there will be many changes required to the CDB. However, in the event that a valid value requires modification a procedure will be made available for this use.

TASK 2: Procedure for updating Explain

Within an ICS System the Explain Database captures the valid values associated with each attribute so that the user can readily determine the values he may include in his search request. The Explain Database records the controlled list of attributes and therefore must be updated to reflect any change or deletion decision that was generated from the previous procedure. It is envisioned that this will be an automated procedure which will allow the data administrator at the ICS Site to easily incorporate these changes.

Catalogue Interoperability Protocol - (CIP) Specification - Valids 9 February CEOS/WGISS/PTT/CIP-Valids, Issue 0.1	Page 13of 117

3. Valids (Alphabetical Order)

This section lists all valids in alphabetical order and provides for each:

- a description (extracted from Appendix B of the CIP specification [CIP-B]).
- the sources that have been used
- the recommended default valid
- all valids

3.1 AcquisitionStation

Description: Identifier of the station, which will or has received the data.

Sources: TBD

Default Valid:

3.2 AcquisitionStatus

Description: Status of the acquisition, e.g. acquired, .planned, etc

Sources: CIP defined

Default Valid:

Valids	
Acquired	
Planned	
Possible	
Presumed	

3.3 ArchivingCentreId

Description: Unique code for the agency/data centre holding the data. Several copies of a single pass can exist and each archive will be listed as a possible source of that pass.

Sources: TBD

Default Valid:

3.4 BandMode

Description: Set of flags describing the status of activity of each band (active or not

active).

Sources: CIP defined

Default Valid:

Valids	
ACTIVE	
NOT_ACTIVE	

3.5 BrowseCompression

Description: Description of the method used for compression of the browse data.

Sources: TBD

Default Valid:

3.6 BrowseFormat

Description: Format of the browse data, e.g. GIF.
Sources: [FGDC *Browse Graphic File Type*]

Default Valid:

Valids	Description
CGM	Computer Graphics Metafile
EPS	Encapsulated Postscript format
GIF	Graphic Interchange Format
JPEG	Joint Photographic Experts Group format
PBM	Portable Bit Map format
PS	Postscript format
TIFF	Tagged Image File Format
XWD	X-Windows Dump

3.7 CollectionCategory

Description: Category of a collection.

Sources: CIP defined

Default Valid;

Valids
Registered
Unregistered

3.8 CollectionHierarchyCategory

Description: Category of the hierarchy.

Sources: CIP defined

Default Valid:

Valids
Product

3.9 CollectionHierarchyPosition

Description: Position of the collection in the collection hierarchy, i.e. terminal'or non-

Sources: CIP defined

Default Valid:

Valids

Terminal

Non-Terminal

3.10 Country

Description: The country of the address.

Sources: [ISO Country name]

Default Valid:

Valids
Afghanistan
Albania
Algeria
American Samoa
Andorra
Angola
Anguilla
Antarctica
Antigua and Barbuda
Argentina
Armenia
Aruba
Australia
Austria

Valids
Azerbaijan
Bahamas
Bahrain
Bangladesh
Barbados
Belarus
Belgium
Belize
Benin
Bermuda
Bhutan
Bolivia
Bosnia and Herzegovina
Botswana
Bouvet Island
Brazil
British Indian Ocean Territory
Brunei Darussalam
Bulgaria
Burkina Faso
Burundi
Cambodia
Cameroon
Canada
Cape Verde
Cayman Islands
Central African Republic
Chad
Chile
China
Christmas Island
Cocos (Keeling) Islands
Colombia
Comoros
Congo
Cook Islands
Costa Rica
Cote d'Ivoire
Croatia
Cuba
Cyprus
Czech Republic

Valids
Denmark
Djibouti
Dominica
Dominican Republic
Ecuador
Egypt
El Salvador
Equatorial Guinea
Eritrea
Estonia
Ethiopia
Falkland Islands (Islas Malvinas)
Faroe Islands
Fiji
Finland
France
French Guiana
French Polynesia
French Southern Territories
Gabon
Gambia
Georgia
Germany
Ghana
Gibraltar
Greece
Greenland
Grenada
Guadeloupe
Guam
Guatemala
Guinea
Guinea-Bissau
Guyana
Haiti
Heard Island & McDonald Islands
Holy See (Vatican City State)
Honduras
Hungary
Iceland
India
Indonesia

W. W.
Valids
Iran
Iraq
Ireland
Israel
Italy
Jamaica
Japan
Jordan
Kazakhstan
Kenya
Kiribati
"Korea, DPR"
"Korea, Republic of"
Kuwait
Kyrgyzstan
Laos
Latvia
Lebanon
Lesotho
Liberia
Libya
Liechtenstein
Lithuania
Luxembourg
Масаи
"Macedonia, the Former Yugoslav Republic of"
Madagascar
Malawi
Malaysia
Maldives
Mali
Malta
Marshall Islands
Martinique
Mauritania
Mauritius
Mayotte
Mexico
Micronesia
Moldova
Monaco
Mongolia

Valids
Montserrat
Morocco
Mozambique
Myanmar
Namibia
Nauru
Nepal
Netherlands
Netherlands Antilles
New Caledonia
New Zealand
Nicaragua
Niger
Nigeria
Niue
Norfolk Island
Northern Mariana Islands
Norway
Oman
Pakistan
Palau
Panama
Papua New Guinea
Paraguay
Peru
Philippines
Pitcairn Islands
Poland
Portugal
Puerto Rico
Qatar
Reunion
Romania
Russian Federation
Rwanda
San Marino
Sao Tome and Principe
Saudi Arabia
Senegal
Seychelles
Sierra Leone
Singapore
Sao Tome and Principe Saudi Arabia Senegal Seychelles Sierra Leone

Valids
Slovakia
Slovenia Solomon Islands
Somalia
South Africa
South Georgia and the South Sandwich Is
Spain
Sri Lanka
St. Helena
St. Kitts and Nevis
St. Lucia
St. Pierre and Miquelon
St. Vincent and the Grenadines
Sudan
Suriname
Svalbard and Jan Mayen
Swaziland
Sweden
Switzerland
Syria
Taiwan
Tajikistan
"Tanzania, United Republic of"
Thailand
Togo
Tokelau
Tonga
Trinidad and Tobago
Tunisia
Turkey
Turkmenistan
Turks and Caicos Islands
Tuvalu
Uganda
Ukraine
United Arab Emirates
United Kingdom
United States
Uruguay
Uzbekistan
Vanuatu
Venezuela

Valids
Vietnam
"Virgin Islands, British"
"Virgin Islands, US"
Wallis and Futuna
Western Sahara
Samoa
Yemen
Yugoslavia
Zaire
Zambia
Zimbabwe

3.11 DataCentreName

Description: The data centre name is composed of both short and long versions in the same manner as short and long sensor and data source names.

Sources: [GCMD Data Center]

Default Valid:

Valids	Descriptions
AARC	Arctic & Antarctic Research Center
ACC	Alaska Climate Center
ACCA21	Administrative Center for China's Agenda 21
ACCU-WEATHER	
ACZDD	Atlantic Coastal Zone Database Directory
AEDC/UK	Antarctic Environmental Data Centre
AEDD	Arctic Environmental Data Directory
AES	Agricultural Experiment Station, Texas
AES/EC	Atmospheric Environment Service, EC
AETL	Army Engineers Topographic Laboratories
AGC/GSC/EMR	Atlantic Geoscience Centre, GSC, EMR
AGU	Aoyama Gakuin University
AIRS	Aerometric Information Retrieval System, EPA
ALF	National Agricultural Library Forum
AMES	Ames Research Center, NASA
AMES/GRAPES	NASA Ames Research Center GRAPES Project
AMPTE/APL	CCE Science Data Center, APL
AMRC	Antarctic Meteorology Research Center
ANCC/BOM	Australian National Climate Center Bureau of Meteorology
ANCC/BOM/NSWRO	Bureau of Meteorology New South Wales Regional Office
ANCC/BOM/NTRO	Bureau of Meteorology Northern Territory Regional Office

Valids	Descriptions
ANCC/BOM/QRO	Bureau of Meteorology Queensland Regional Office
ANCC/BOM/SARO	Bureau of Meteorology South Australian Regional Office
ANCC/BOM/TARO	Bureau of Meteorology Tasmanian-Antarctica Regional Office
ANCC/BOM/VRO	Bureau of Meteorology Victorian Regional Office
ANCC/BOM/WARO	Bureau of Meteorology Western Australian Regional Office
AODC	Australian Oceanographic Data Centre
APHIS	Animal and Plant Health Inspection Service
APRF	Atmospheric Profiler Research Facility/Army Research Laboratory
APSRS	Aerial Photography Summary Record System
AQDEDCG	Air Quality Division, Environment Department Chiba Government
ARM ARCHIVE	Atmospheric Radiation Measurement Project Archive, DOE
ARB	Air Resources Branch, Ontario Ministry of the Environment and Energy, Canada
ARSI	Atmospheric Research Systems Inc.
ASDLS	Antarctic Seismic Data Library System
ASF	Alaska SAR Facility
ASF DAAC	ASF Distributed Active Archive Center
ATSDR	Agency for Toxic Substances and Disease Registry
AU	Auburn University
AUSLIG	Australian Survey and Land Information Group
AVISO	Archiving, Validation and Interpretation of Satellite Oceanographic Data
AWI	Alfred Wegener Institute for Polar and Marine Research
AWIS	Agricultural Weather Information Service, Inc.
AXYS	AXYS Software Ltd.
AZGS	Arizona Geological Survey
BADC	British Atmospheric Data Centre
BADC/RAL	British Atmospheric Data Center Rutherford Appleton Laboratory
BARTHOLOMEWS	
BAS	British Antarctic Survey
BBSO	Big Bear Solar Observatory
BDC	Backgrounds Data Center
BEA	Bureau of Economic Analysis
BEV	Bundesamt fuer Eich-und Vermessungswesen
BGS	British Geological Survey
BIO/F&O	Bedford Institute of Oceanography, Fisheries and Oceans, Canada
BISHOP MUSEUM	Bishop Museum Department of Natural Sciences
BLM	Bureau of Land Management
BODC	British Oceanographic Data Centre
BPRC	Byrd Polar Research Center
BROWN OBSERVATORY	
BTS	Bureau of Transportation Statistics
CALDEPTCON/CDMG/SACRAM	California Dept of Conservation, Division of Mines and Geology, Sacramento
ENTO	Campornia Dept of Conservation, Division of intities and Geology, sacramento

Valids	Descriptions
CARB	California Air Resource Board
CBP	Chesapeake Bay Program
CCAR/CU	Colorado Center for Astrodynamics Research University of Colorado
CCG/GC/NRCAN	Canada Centre for Geomatics, GC, NRCan
CCRS/GC/NRCAN	Canada Centre for Remote Sensing, GC, NRCan
CCRS/SMRSS/EMR	Canada Centre for Remote Sensing, SMRSS, EMR
CDC	Communications Data Services, Inc.
CDDIS	Crustal Dynamics Data Information System
CDIAC	Carbon Dioxide Information Analysis Center, DOE
CEADO	Centro Argentino de Datos Oceanograficos
CEDAR	Coupling, Energetics & Dynamics of Atmospheric Regions
CEDARE	Centre for Environment and Development for the Arab Region and Europe
CEDO	Centro Espanol de Datos Oceanograficos
CENDOC	Centro Nacional de Datos Oceanograficos de Chile
CENPAT	Patagonian National Centre
CERB	Centro de Estudios de Recursos Bioticos
CERC	Coastal Engineering Research Center
CERC/FRF	Coastal Engineering Research Center, Field Research Facility
CERIS	Center for Environmental and Regulatory Systems
CES	Cooperative Extension Service
CES/USGS	Cooperative Extension Service/ U.S. Geological Survey
CESBIO	Centre d'Etudes Spatiales de la Biosphere
CGEIC	Canadian Global Emissions Interpretation Centre (CGEIC)
СН	Chadwyck-Healey Inc.
CHF	Chadwyck-Healey Inc. of France
CHS	Chadwyck-Healey Inc. of Spain
CIESIN	Consortium for International Earth Science Information Network
CIKARD	Center for Indigenous Knowledge for Agriculture and Rural Development
CIR	Center for International Research
CIS	Chemical Information Systems
CLBRR/CEF/AGR	Centre for Land and Biological Resources Research, CEF, AGR
CMO/GC/NRCAN	Canada Map Office, GC, NRCan
CNES	Centre National d'Etudes Spatiales, France
CNIG	Centro Nacional de Informacion Geographica, Spain
CNL	Crocker Nuclear Laboratory
CNODC	China National Oceanographic Data Center
CNR/IROE	Consiglio Nazionale delle Ricerche/Istituto di Ricerca sulle Onde Elettromagnet.
CNRE MADAGASCAR	Centre National de Recherche sur l'Environnement, Madagascar
CNRM/GMME	Centre National de Recherche Meteorologique
COBA	Centro Oceanografico Buenos Aires
CPS/EC	Canadian Parks Service, EC
CRES/ANU	Centre for Resource and Environmental Studies, Australian National University

Valids	Descriptions
CRIS	Current Research Information System
CRL	Communications Research Laboratory
CRSGS	China Remote Sensing Satellite Ground Station
CRSSA/CC	Center for Remote Sensing and Spatial Analysis, Cook College
CRU	Climate Research Unit, University of East Anglia
CSA	Canadian Space Agency
CSC	Computer Science Corporation
CSS	Center for Seismic Studies, DARPA
CSSA	Center for Space Science and Astrophysics
CSU	Colorado State University
CSU/MIT	Colorado State University, Massachusetts Institute of Technology
CSU/NREL	Colorado State University Natural Resource Ecology Laboratory
CTIC	Conservation Technology Information Center
CU - CORNELL	Cornell University
CU - CLEMSON	Clemson University
CWS	Canadian Wildlife Service
CYPRESS	Cypress Geo-Resources, Inc.
DACEOU	Department of Applied Chemistry and Engineering, Oita University
DALI	CNES-SPOT IMAGE Catalogue
DEAPO	Department of Environment, Aichi Prefecture Office
DECEKU	Department of Civil Engineering, Kyushu University
DEPK	Department of Environment and Pollution, Kumamoto Prefecture
DEYP	Department of Environment Yamanashi Prefecture
DHETP	Department of Health and Environment Tokushima Prefecture
DIASHU	Department of Integrated Arts and Sciences, Hiroshima University
DKRZ	Deutsches Klimarechenzentrum GmbH
DLR/DFD	German Remote Sensing Data Center, Deutsches Fernerkundungsdatenzentrum (DFD)
DMA/CSC	Defense Mapping Agency Combat Support Center
DOD	Deutsches Ozeanographisches Datenzentrum
DOE/BNL	Brookhaven National Laboratory, DOE
DOE/EIA	Department of Energy, Energy Information Administration
DOE/EML	Department of Energy Environmental Measurements Lab
DRA	Defense Research Agency
DRAO	Dominion Radio Astrophysical Observatory
DSEMU	Department of Science and Engineering, Meiji University
DUPAGE	College of DuPage, Illinois
DVNII	Far East Research Institute for Hydrometeorology
DWD	Deutscher Wetterdienst
DWD/GPCC	Global Precipitation Climatology Centre
DWD/NKDZ	Nationales Klimadatenzentrum
EC	Environment Canada
ECLAT-ESCG	Evolution du Climat et de l'Atm-Economie et Societe Face aux Changements Globaux

Valids	Descriptions
ECMWF	European Centre for Medium-Range Weather Forecasts
ECS-GSFC	EOSDIS Core System Goddard Space Flight Center
EDC_DAAC	EROS Data Center Distributed Active Archive Center
EDIMAR	Estacion de Investigaciones Marinas Isla Margarita - FLASA
EDIMS/UNH	Environmental Data and Information Management System, Univ. of New Hampshire
EESD/LANL	Earth & Environmental Sciences Division/Los Alamos National Laboratory
EIC/ITE	Environmental Information Centre at the Institute of Terrestrial Ecology
EII	EarthInfo Inc.
EINET	Eurimage/eiNet
ELTU	Environmental Laboratory Tohoku University
ENEA-CR	ENEA - Casaccia - Roma
ENVIRONET	Space Environment Information Service
EOC	Earth Observation Center
EODC	Earth Observation Data Centre
EOSAT	Space Imaging EOSAT
EPA	Environmental Protection Agency
EPA/AREAL/EERD/GCRB	Global Climate Research Branch
EPA/NERL	National Exposure Research Laboratory, EPA
EPD	European Pollen Database
EPRI	Electric Power Research Institute
EPRI/ASDC	Electric Power Research Institute/Atmospheric Sciences Data Center
EREN/DOE	Energy Efficiency and Renewable Energy Network, DOE
ERIDAN-1	Eridan-1 Ltd.
EROS	Earth Resources Observation Systems Data Center
ERS	Economic Research Service
ESA ERS-1 US	European Space Agency ERS-1 Users Service
ESA/ESOC	European Space Agency/ESOC
ESA/ESRIN DEX/EU	European Space Agency/ESRIN Earth Remote Sensing User Services
ESA/ESRIN RS/OD	European Space Agency/ESRIN Remote Sensing Services
ESCIC	Environmental Surveillance Center of Ichihara City
ESDD	Earth Science Data Directory, USGS
ESHSNU	Department of Earth Sciences, Humanities and Sciences, Nihon University
EURIMAGE SCRL	
FAO	Food and Agriculture Organization of the United Nations
FAO/FI	Food and Agriculture Organization of the United Nations, Fisheries Department
FARM-A-SYST	National Farm Assessment Office
FC	Forestry Canada
FCAGLP	Facultad de Ciencias Astronomicas y Geofisicas
FED/BMR	Bureau of Mineral Resources, Austalia
FED/BRR	Bureau of Rural Resources, Australia
FED/NRC	National Resource Information Centre, Australia
FHG/IFU	Fraunhofer Institute for Atmospheric Environmental Research

Valids	Descriptions
FIAMS	Flinders Institute for Atmospheric and Marine Sciences
FIMR	Finnish Institute of Marine Research
FLA/DOT	Florida Department of Transportation
FO	Fisheries and Oceans, Canada
FSE/SUT-NISHIMURA LABORATORY	Faculty of Science and Engineering, Science University of Tokyo, Nishimura Labo
FSPFES	Fukushima Prefecture Fisheries Experiment Station
FSU	Florida State University
FSU/COAPS	Florida State University Center for Ocean-Atmospheric Prediction Studies
FSU/METO	Florida State University, Meteorology Department
FTRS	Fruit Tree Research Station
FUB	Institute for Meteorology Free University Berlin
FWIE	Fish and Wildlife Information Exchange, Virginia Tech
FWS/ALASKA	U.S. Fish and Wildlife Service, Alaska
G2 ENVIRONMENTAL	G2 Environmental, Inc.
GC/NRCAN	Geomatics Canada, NRCan
GCIP	GCIP Project Office
GDC/GSC/NRCAN	Geophysical Data Centre, GSC, NRCan
GDCEDC	GALE, ERICA Data Center, Drexel University
GDS	GeoMet Data Services, Inc.
GDT	Geographic Data Technology
GEOLYTICS	
GEOTERREX	GEOTERREX, A Division of CGG Canada Ltd.
GETECH	Geophysical Exploration Technology
GFZ	Geo Research Center Potsdam
GIC	GRASS Information Center
GIRIN	Government Industrial Research Institute, Nagoya
GISS	Goddard Institute for Space Studies, NASA
GIT	Georgia Institute of Technology
GKSS	GKSS Forschungszentrum GmbH Geesthacht, Germany
GLA	Goddard Laboratory for Atmospheres, NASA/GSFC
GLFC/FC	Great Lakes Forestry Centre, FC
GLOBE	Global Learning and Observations to Benefit the Environment
GMW	Galson MesoWeather
GOLDIS	Geophysics On-Line Data and Information System
GONG DMAC	GONG Data Management and Analysis Center
GRDC	Global Runoff Data Center
GSALA	Geological Survey of Alabama
GSI	Geographical Survey Institute
GSC	Geological Survey of Canada
GSC/EMR	Geological Survey of Canada, EMR
GSC/NRCAN	Geological Survey of Canada, NRCan

Valids	Descriptions
GSC/ATL/NRCAN	Geological Survey of Canada, Atlantic, NRCan
GSD/SMRSS/EMR	Geodetic Survey Division, SMRSS, EMR
GSF PUC	GSF Research Center for Environment and Health
GSFC ACDB	Atmospheric Chemistry and Dynamics Branch, NASA
GSFC DE	GSFC Dynamics Explorer, NASA
GSFC/CRB	Goddard Space Flight Center Climate Radiation Branch, NASA
GSFC/HYDRO	Laboratory for Hydrospheric Processes, NASA
GSFC/LA	Goddard Space Flight Center Laboratory for Atmospheres
GSFC/OIB	Goddard Space Flight Center Oceans and Ice Branch, NASA
GSFC/TRMM	Goddard Space Flight Center Tropical Rainfall Measuring Mission, NASA
GSFC_DAAC	Goddard Space Flight Center Distributed Active Archive Center, NASA
GSH	Geological Survey of Hokkaido
GSJ	Geological Survey of Japan
GSS	Geophysical Survey of Slovenia
GWC	Gulf Weather Corporation
HARVARD/APPSCIENCE	Harvard University Division of Applied Sciences
HARVARD/LTER	Harvard University, Harvard Forest
HCFES	Hokkaido Central Fisheries Experimental Station
HDPI	Hydrosphere Data Products Inc.
HE	Hamilton Exploration
HIT	Hachinohe Institute of Technology
HNAES	Hokkaido National Agricultural Experiment Station
HNHS	Hellenic Navy Hydrographic Service
НРСС	High Plains Climate Center
HPFES	Hyogo Prefectural Fisheries Experimental Station
HU	Hirosaki University
IAA	Instituto Antartico Argentino
IAS	Institut d'Aeronomie Spatiale
ICASALS	International Center for Arid and Semi-Arid Land Study
ICES/SVC_HYDR	International Council for the Exploration of the Sea, Service Hydrographique
ICPRB	Interstate Commission on the Potomac River Basin
ICPSR	Inter-university Consortium for Political and Social Research
ICRAF	International Centre for Agroforestry
ICSF/SUNY/BUFFALO	Ice Core Storage Facility, State University of New York, Buffalo
IDI	Intermountain Digital Imaging
IDRC	International Development Research Centre
IFM	Institut fuer Meereskunde, Kiel, Germany
IFSI	Istituto di Fisica dello spazio Interplanetario, CNR
IGAC-GEIA	GEIA Data Management and Information Exchange Center
IGC	Institute for Global Communications, San Francisco
IGNE	IGN ESPACE
IGPO	International GEWEX Project Office

Valids	Descriptions
IGS/CBIS	International GPS Service for Geodynamics, Central Bureau Information System
IGS/CIGNET	International GPS Service for Geodynamics, NOAA Geosciences Lab
IGS/GSD/NRCAN	International GPS Service for Geodynamics, Natural Resources, Canada
IGS/IFAG	International GPS Service for Geodynamics, Institut fuer Angewandte Geodaesie
IGS/IGN	IGS GPS Service, Institut Geographique National Global Data Center, France
IGS/JPL	International GPS Service for Geodynamics, JPL Special Data Center
IGS/SIO	International GPS Service for Geodynamics, Scripps Institution of Oceanography
IISTU	Institute of Industrial Science, Tokyo University
IMDC	Irish Marine Data Centre
INAC	Indian and Northern Affairs Canada
INFOCLIMA	World Climate Data and Information Referral Service (UN WMO)
ING/ROME	Istituto Nazionale di Geofisica, Rome, Italy
INNOTECH	Innotech Aviation Limited
INOCAR	Instituto Oceanografico de la Armada
INODC	Indian National Oceanographic Data Centre
INPE	Instituto Nacional de Pesquisas Espaciais
INPE/CPTEC	Centro de Previsao de Tempo e Estudos Climaticos
INPE/DAE/FISAT	INPE/Aeronomy Division/Fisca da Alta Atmosfera (Upper Atmosphere Research)
INPE/DAS	INPE Astrophysics Division
INPE/DGI	INPE Divisao de Geracao de Imagens
INPE/DSA	INPE Div. of Environmental Satellites Ops.
INPE/DSM	INPE Divisao de Sensoriamento Remoto
INPE/DSR	INPE Division of Remote Sensing
INPE/IGGDC	INPE Geochemistry and Geophysical Data Center
IOF	Institute of Oceanography and Fisheries
IPCC	Intergovernmental Panel on Climate Change
IPCR	The Institute of Physical and Chemical Research
IPL	Istituto Per L'Ambiente
IPPRC	Ibaraki Prefectual Pollution Research Center
IRE-CPSSI	IRE RAS Center of Processing and Storing the Space Information
IRIS	Incorporated Research Institutions for Seismology
ISAS	Institute for Space and Astronautical Sciences
ISIS	Intelligent Satellite Data Information System
ISPG	Institute of Sedimentary & Petroleum Geology
ISPG/GSC/EMR	Institute of Sedimentary & Petroleum Geology, GSC, EMR
ISS	Institute for Social Studies
ISTAR	Imagerie STereo Appliquee au Relief
ISWS	Illinois State Water Survey
ITA	Institute of Theoretical Astrophysics, Oslo, Norway
IUCN	IUCN-The World Conservation Union
IUCN/SSC/AFESG	African Elephant Specialist Group - Species Survival Commission - WCU
JAMSTEC	Japan Marine Science and Technology Center

Valids	Descriptions
JER	Jornada Experimental Range
JHU/APL	Johns Hopkins University Applied Physics Laboratory
JNODC	Japan Oceanographic Data Center
JPL	Jet Propulsion Lab, NASA
JPL/ATMOS	Jet Propulsion Laboratory/ATMOS, NASA
JPL/PODAAC	Physical Oceanography Distributed Active Archive Center
JRC/SAI	Space Applications Institute at Joint Research Center (JRC), Ispra (VA) /Italy
JSC	Lyndon B. Johnson Space Center, NASA
JWA	Japan Weather Association
KADAI	Department of Applied Chemistry Chemical Engineering, Kagoshima University
KERC	Kanagawa Environmental Research Center
KMRIEP	Kawasaki Municipal Research Institute for Environmental Protection
KOPES	Kochi Prefectual Fisheries Experimental Station
KPFES	Kanagawa Prefectural Fisheries Experimental Station
KSU/LTER	Kansas State University, Konza Prairie LTER Site
KUC	Kobe University of Commerce
KUDA	Kuwait Data Archive
LARC	Langley Research Center, NASA
LARC/UADP	Langley Research Center/Upper Atmosphere Data Program
LARC_DAAC	Langley Research Center Distributed Active Archive Center, NASA
LDEO	Lamont-Doherty Earth Observatory
LDEO/CG	Lamont-Doherty Earth Observatory Climate Group
LFC/FC	Laurentian Forestry Centre, FC
LLNL	Lawrence Livermore National Laboratory
LMD	Laboratoire de Meteorologie Dynamique
LPARL	Lockheed Palo Alto Research Laboratory
LRRL	Livestock and Range Research Laboratory
LSC/METO	Lyndon State College, Meteorology Department
LSR	Laboratory for Space Research, Utrecht, The Netherlands
LTER	Long-Term Ecological Research Network Office
MACLAREN	MacLaren Plansearch Ltd/ SNC/Lavalin Inc
MARF/EUMETSAT	Meteorological Archive Retrieval Facility/ EUMETSAT
MARIS	Marine Information Service
MARTEC	Martec, Ltd
MBARI	Monterey Bay Aquarium Research Institute
MBL/LTER	Marine Biological Laboratory, Woods Hole
MCAU	Mining College, Akita University
MDD/INAC	Mineral Development Division, INAC
MDDNR	Maryland Department of Natural Resources
MDNR	Michigan Department of Natural Resources
MEDIAS	Support Office for Regional Research on Global Environmental Change
MEDS	Marine Environmental Data Service

Valids	Descriptions
MERI	Marine Ecology Research Institute
MIAS	Marine Information & Advisory Service
MIC	Meteorological Information Center (JWA)
MICROMEDEX	Micromedex, Inc.
MIT/WRL	Massachussetts Institute of Technology Weather Radar Laboratory
MMS/GOMR	Minerals Management Service, Gulf of Mexico Outer Continental Shelf Region
MODB	Mediterranean Oceanic Data Base
MPFES	Miyagi Prefectural Fisheries Experimental Station
MPI	Max Planck Institute
MRD/GSC/EMR	Mineral Resources Division, GSC, EMR
MRI/JMA	Meteorological Research Institute Japan Meteorological Agency
MRJ INC.	
MRSC	Manitoba Remote Sensing Centre, Manitoba, Canada
MSC	Media Services Corporation
MSDST	MODIS Science Data Support Team
MSFC	Marshall Space Flight Center, NASA
MSFC/GHRC	Global Hydrology Resource Center, NASA/MSFC
MSFC-SDC	MSFC Solar Data Center
MSLAB	Marine Science Laboratory, Faculty of Engineering, Oita University
MSO	Mees Solar Observatory, University of Hawaii
MSSL	Mullard Space Sciences Laboratory, UK
MSU	Michigan State University
MSU/LTER	Michigan State University, Kellogg Biological Station (KBS)
MUOHIO	Miami University, Ohio
MZPIPHE	The Miyazaki Prefectural Institute of Public Health and Environment
NADP/NTN	National Atmospheric Deposition Program/National Trends Network
NAIS	National Atlas Information Service of Canada
NAOM	National Astronomical Observatory, Mizusawa
NARA	National Archives and Records Administration
NASA/GSFC/ESD/NDRD	Natural Disaster Reference Database, Earth Sciences Directorate, NASA/GSFC
NASA/GSFC/HSB	Hydrological Sciences Branch, NASA/GSFC
NAVOCEANO	U.S. Naval Oceanographic Office
NAVY/NOAA JIC	Joint Ice Center
NAWDEX	National Water Data Exchange, USGS
NAWQA	National Water Quality Assessment Program
NBDNRE	New Brunswick Department of Natural Resources and Energy
NBDOE	New Brunswick Department of the Environment
NBGIC	New Brunswick Geographic Information Corporation
NBS/CPSU/OSU	Cooperative Park Studies Unit, Oregon State University
NBS/CPSU/UMINN	Cooperative Park Studies Unit, University of Minnesota
NBS/CPSU/UWASH	Cooperative Park Studies Unit, University of Washington
NBS/GNP	Glacier National Park Field Station

Valids	Descriptions
NBS/GNP/UMONT	Glacier National Park, University of Montana
NBS/NBII	National Biological Service National Biological Information Infrastructure
NBS/RMNP	Rocky Mountain National Park Field Station
NBS/SKCNP	Sequoia-Kings Canyon National Park Field Station
NBS/YNP	Yosemite National Park Field Station
NCAR	National Center for Atmospheric Research
NCAR/ACD	Atmospheric Chemistry Division, NCAR
NCAR/ATD	Atmospheric Technology Division, NCAR
NCAR/ATD/RDP	Atmospheric Technology Division, Research Data Program, NCAR
NCAR/DSS	Data Support Section, NCAR
NCAR/HAO	High Altitude Observatory, NCAR
NCAR/RAP	Research Application Program, NCAR
NCAR/SCD/MSS	Scientific Computing Division, Mass Storage System, NCAR
NCDEDCG	Nature Conservation Division Environment Department Chiba Prefectural Government
NCEDC	Northern California Earthquake Data Center
NCMR	National Centre For Marine Research
NCSU	North Carolina State University
NDSU	North Dakota State University
NEDRES	National Environmental Data Referral Service, NOAA
NERC/DU	National Environment Research Council, Dundee University
NERSC	Nansen Environmental and Remote Sensing Centre
NFLDDFA	Newfoundland Department of Forestry and Agriculture
NFLDDME	Newfoundland Department of Mines and Energy
NFLDDNR	Newfoundland Department of Natural Resources
NGRL	National Germplasm Resources Laboratory
NIBH	National Institute of Bioscience and Human Technology
NIED	National Research Institute for Earth Science and Disaster Prevention
NIES	National Institute for Environmental Studies
NILU	Norwegian Institute for Air Research
NIPR	National Institute of Polar Research
NIRS	National Institute of Radiological Sciences
NIST	National Institute of Standards and Technology
NMML	National Marine Mammal Laboratory
NMSU	New Mexico State University
NNHP	Nongame and Natural Heritage Program
NOAA-SAA	NOAA/NESDIS Satellite Active Archive
NOAA/CBO	NOAA Chesapeake Bay Office
NOAA/CS/NCOPO	Coastal Ocean Program Office, NOAA
NOAA/CSC	NOAA Coastal Services Center
NOAA/NESDIS/ARL	Air Resources Laboratory, NOAA
NOAA/NESDIS/EIS	Environmental Information Services, NOAA
NOAA/NESDIS/NCDC	National Climatic Data Center, NOAA

Valids	Descriptions
NOAA/NESDIS/NCDC/GSAA	NCDC Geostationary Satellite Active Archive, NOAA
NOAA/NESDIS/NCDC/OASIS	NCDC On-line Access and Service Information System, NOAA
NOAA/NESDIS/NCDC/OSCAR	NCDC On-line Satellite Catalog Access and Retrieval System, NOAA
NOAA/NESDIS/NCDC/SDSD	Satellite Data Services Division, NOAA
NOAA/NESDIS/NGDC	National Geophysical Data Center, NOAA
NOAA/NESDIS/NODC	National Oceanographic Data Center, NOAA
NOAA/NESDIS/NODC/LISD	Library Services Information Division, NOAA
NOAA/NESDIS/ORA/SAL/SIB	Satellite Applications Laboratory Sounding Implementation Branch, NOAA
NOAA/NESDIS/OSDPD	Office of Satellite Data Processing and Distribution, NOAA
NOAA/NMFS/NEFC	Northeast Fisheries Center, NOAA
NOAA/NMFS/OREI	Office of Research and Environmental Information, NOAA
NOAA/NMFS/SEFC	Southeast Fisheries Center, NOAA
NOAA/NMFS/SWFC	Southwest Fisheries Center, NOAA
NOAA/NMFS/SWFC/PFEG	Pacific Fisheries Environmental Group, NOAA
NOAA/NOS/ACC/ACD	Aeronautical Chart Division, NOAA
NOAA/NOS/NGS	National Geodetic Survey, NOAA
NOAA/NOS/OCS/HSD	Hydrographic Surveys Division, NOAA
NOAA/NOS/OCS/MCD	Marine Chart Division, NOAA
NOAA/NOS/OCS/OPSD	Oceanographics Products and Services Division, NOAA
NOAA/NOS/OES/MAID/CEOB	Coastal and Estuarine Oceanography, NOAA
NOAA/NOS/OES/MAID/OAB	Ocean Applications Branch, NOAA
NOAA/NOS/ORCA/CMBAD	Coastal Monitoring and Bioeffects Assessment Division, NOAA
NOAA/NOS/ORCA/SEA	Strategic Environmental Assessment Division, NOAA
NOAA/NWS/BUFFALO	Buffalo Forecast Office, NOAA
NOAA/NWS/LA	Los Angeles/Oxnard California, NOAA
NOAA/NWS/NDBC	National Data Buoy Center
NOAA/NWS/NMC	National Meteorological Center, NOAA
NOAA/NWS/NMC/NCEP/CPC	Climate Prediction Center, NOAA
NOAA/NWS/NMC/NCEP/NHC	National Hurricane Center, NOAA
NOAA/NWS/NMC/NCEP/CPC/H PCC	High Plains Climate Center, NOAA
NOAA/NWS/NMC/NCEP/CPC/M CC	Midwestern Climate Center, NOAA
NOAA/NWS/NMC/NCEP/CPC/N RCC	Northeast Regional Climate Center, NOAA
NOAA/NWS/NMC/NCEP/CPC/SE RCC	Southeast Regional Climate Center, NOAA
NOAA/NWS/NMC/NCEP/CPC/SR CC	Southern Region Climate Center,NOAA
NOAA/NWS/NMC/NCEP/CPC/W RCC	Western Regional Climate Center,NOAA
NOAA/NWS/NOHRSC	National Operational Hydrologic Remote Sensing Center, NOAA
NOAA/NWS/OAX	Kansas City/Pleasant Hill Office, NOAA
NOAA/NWS/PTWC	Pacific Tsunami Warning Center, NOAA
NOAA/NWS/PUB	Pueblo Colorado Office, NOAA

Valids	Descriptions
NOAA/NWS/SALTLAKE	Salt Lake City, Utah Forecast Office, NOAA
NOAA/NWS/SANFRANCISCO	San Francisco Bay Area, NOAA
NOAA/NWS/SIOUX-FALLS	Sioux Falls South Dakota Forecast Office, NOAA
NOAA/NWS/WILMINGTON	Wilmington Ohio Forecast Office, NOAA
NOAA/NWS/WRH/CBRFC	Colorado Basin River Forecast Center
NOAA/OAR/AOML	Atlantic Oceanographic and Meteorological Laboratory, NOAA
NOAA/OAR/AOML/HRD	Hurricane Research Division, NOAA
NOAA/OAR/CMDL	Climate Monitoring Diagnostics Laboratory, NOAA
NOAA/OAR/CMDL/NOAH	Nitrous Oxide and Halocompounds Division, NOAA
NOAA/OAR/ERL/AL	Aeronomy Laboratory, NOAA
NOAA/OAR/ERL/ARL	Air Resources Laboratory, NOAA
NOAA/OAR/ERL/ARL/ASMD	Atmospheric Sciences Modeling Division, NOAA
NOAA/OAR/ERL/ARL/ATDD	Atmospheric Turbulence and Diffusion Division
NOAA/OAR/ERL/CDC	Climate Diagnostics Center, NOAA
NOAA/OAR/ERL/ETL	Environmental Technology Laboratory, NOAA
NOAA/OAR/ERL/FSL	Forecast Systems Laboratory, NOAA
NOAA/OAR/ERL/GLERL	Great Lakes Environmental Research Laboratory, NOAA
NOAA/OAR/ERL/NSSL	National Severe Storms Laboratory, NOAA
NOAA/OAR/ERL/SEL/SESC	Space Environment Laboratory, NOAA
NOAA/OAR/ERL/WPL	Wave Propagation Laboratory, NOAA
NOAA/OAR/PMEL	Pacific Marine Environmental Laboratory, NOAA
NOAA/OAR/PMEL/TAO	TAO Project Office, NOAA/PMEL
NOAA/OAR/WPL	Wave Propagation Laboratory, NOAA
NOD	Norsk Oseanografisk Datasenter
NODC/BULGARIA	National Oceanographic Data Center, Bulgaria
NODC/PAKISTAN	Pakistan National Oceanographic Data Centre
NPMC	National Plant Materials Center
NPRIHE	Niigata Prefectural Research Institute for Health and Environment
NPS	Naval Postgraduate School
NPS/NBS	National Park Service and National Biological Service
NRCS	Natural Resources Conservation Service
NRIFS	National Research Institute of Fisheries Science
NRL/MONTEREY	Naval Research Laboratory Monterey
NRSC	National Remote Sensing Centre
NSIDC	National Snow and Ice Data Center
NSIDC_DAAC	NSIDC Distributed Active Archive Center
NSF	National Science Foundation
NSO/KP	National Solar Observatories, Kitt Peak
NSO/SP	National Solar Observatories, Sacramento Peak
NSSDC	National Space Science Data Center, NASA
NTIS	National Technical Information Service
NTU	National Taiwan University

Valids	Descriptions
NWRC/BBO	National Wildlife Research Centre, Bird Banding Office
NWRC/CWS/EC	National Wildlife Research Centre, CWS, EC
OALS	Office of Arid Lands Studies, University of Arizona
OCEANIC	Ocean Information Center
OECD	Organization for Economic Cooperation and Development
OECD/IEA	OECD/International Energy Agency
OECD/IEA/GR	OECD/International Energy Agency/Germany-Austria-Switzerland
OECD/IEA/JP	OECD/International Energy Agency/Japan and the Far East Group
OECD/IEA/US	OECD/International Energy Agency/United States of America
OGI	Oregon Graduate Institute
OGS	Osservatorio Geofisisco Sperimentale - Geofisica della Litosfera
ONE MADAGASCAR	Office National pour L'Environnement, Madagascar
ОРІРН	Osaka Prefectural Institute of Public Health
ORNL	Oak Ridge National Laboratory
ORNL_DAAC	Oak Ridge National Laboratory Distributed Active Archive Center
ORSTOM	L'Institut Francais de Recherche Scientifique pour Development en Cooperation
OS	Ordnance Survey, UK National Mapping Agency
OSU - OHIO	Ohio State University
OSU - OREGON	Oregon State University
OSU/LTER	Oregon State University, H.J. Andrews LTER Site
PALEOMAP	PALEOMAP Project
PC/CH	Parks Canada, Canadian Heritage
PDREC	Pee Dee Research and Education Center
PDS-GEOSCIENCES NODE	Geosciences Node, Planetary Data System
PFC/FC	Pacific Forestry Centre/FC
PFFATUAT	Phytorn Facility, Fac. of Agriculture Tokyo Univ. of Agriculture and Technology
PI	Petroleum Information On-Line Services
PITT/PALEOMAG	University of Pittsburgh, Paleomagnetic Database Archive
PKDB	International Paleoclimate Database
PLANETA	Research and Production Association, Russia
PNFI/FC	Petawawa National Forest Institute, FC
PNRA	Italian Program for Antarctic Research
PSC	Plymouth State College
PSMSL	Permanent Service for Mean Sea Level
PSU	Pennsylvania State University
PSU/METO	Pennsylvania State University Meteorology Department
PSU/METO/FPDA	Pennsylvania State University Meteorology Department Field Project Data Archive
PU	Purdue University
RAE	Royal Aerospace Establishment
RAL	Rutherford Appleton Laboratories, UK
RAN/HYDRO	Royal Australian Navy, Hydrographic Office
RDC	Radar Data Center

Valids	Descriptions
RESTEC	Remote Sensing Technology Center of Japan
RFF	Resources for the Future, Inc.
RHS	Regional Hydrometeorological Service
RIAMKU	Research for Applied Mechanics Kyushu University
RIDA	Rhode Island Department of Administration
RMDP	Rocky Mountain Digital Peeks
RSAU GHANA	Remote Sensing Applications Unit, University of Ghana
RSL/SUT	Remote Sensing Laboratory, Science University of Tokyo
RU	Rutgers University
SATOBSYS	Satellite Observing Systems
SCAR	Scientific Committee on Antarctic Research
SCDC/IDAHO	State Climate Data Center, Idaho
SCEC_DC	Southern California Earthquake Center Data Center
SDAC	Solar Data Analysis Center, NASA
SDAES	South Dakota Agricultural Experiment Station
SDCS	SAR Data Catalog System, JPL
SDSMT	South Dakota School of Mines and Technology
SEDAC	Socioeconomic Data and Applications Center
SEIMAC	Seimac Research Ltd.
SEL	Solar Environment Laboratory, NOAA
SFU	Simon Fraser University
SGE-SPAIN	Servicio Geographico del Ejercito (SGE), Ministerio de Defensa
SHIRSHOV	Shirshov Institute of Oceanology
SICORP	SPOT Image Corporation
SILVER PLATTER	Silver Platter Information
SI/GVP	Smithsonian Institution, Global Volcanism Program
SIO/C4	SIO Center for Clouds Chemistry and Climate
SIO/CCS	Scripps Institution of Oceanography, Center for Coastal Studies
SIO/GRD	Scripps Institution of Oceanography, Geological Research Division
SIO/JEDAC	Scripps Institution of Oceanography, Joint Environmental Data Analysis Center
SIO/MLRG	Scripps Institution of Oceanography, Marine Life Research Group
SIO/PORD	Scripps Institution of Oceanography, Physical Oceanography Research Division
SIO/SSF	Scripps Institution of Oceanography, Satellite Facility
SIU	Southern Illinois University
SKIS	Six Kingdom Inventory System
SMHI	Swedish Meteorological and Hydrological Institute
SMIPH	Sendai Municipal Institute of Public Health
SMM-DAC	Solar Maximum Mission Data Analysis Center
SNAES	Shikoku National Agricultural Experiment Station
SOED/EC	State of the Environment Directorate, EC
SPIPHES	Shizuoka Prefectural Institute of Public Health and Environmental Science
SPOT IMAGE	

Valids	Descriptions	
SSC ESRANGE	Swedish Space Corporation, Esrange Satellite Station	
SSC SATELLITBILD	Swedish Space Corporation, Satellitbild	
SSC/NSSDC	Satellite Situation Center, NSSDC	
SSCTR	Stennis Space Center, NASA	
SSEOP	Space Shuttle Earth Obs. Phot. Database, NASA	
STATSCAN	Statistics Canada, Geography Division	
STB	Science and Technology Branch, Ontario Min. of Env. and Energy	
STELNU	Solar Terrestrial Environment Lab, Nagoya Univ.	
STORET	EPA Water Data STOrage and RETrieval Data Base	
SUCESF	SUNY College of Environmental Science/Forestry	
SUCO	SUNY College at Oswego	
SUNY/BUFFALO	SUNY College at Buffalo	
SUNY/STONY BROOK	State University of New York - Stony Brook	
SWRI	Southwest Research Institute	
TAMU	Texas A&M University	
TAMU/GERG	Texas A&M University, Geochemical & Environmental Research Group	
TCIPO	TOGA COARE International Project Office	
TER	Dept. of Earth Sciences, University of Siena	
TNCMT	Toba National College of Maritime Technology	
TNRIS	Texas Natural Resources Information System	
TSDC	TOGA Subsurface Data Center	
TU	Trent University	
TVA/ERC	Tennessee Valley Authority/Environmental Research Center	
UA - ARIZONA	University of Arizona	
UAF/GDC	Univ. of Alaska Fairbanks, GeoData Center, Geophysical Institute	
UAF/IMS	Univ. of Alaska Fairbanks, Institute of Marine Science	
UAH/ATMOS	University of Alabama/Department of Atmospheric Sciences	
UAH/ATMOS/ESSL	Earth System Science Laboratory, University of Alabama	
UAS/MHI	Ukrainian Academy of Sciences/Marine Hydrophysical Institute (MHI)	
UB/CRC	Universite de Bourgogne Centre de Recherches de Climatologie	
UBIRM	University of Birmingham, UK	
UC/CIRES	Univ. of Colorado, Cooperative Institute for Research in Environmental Sciences	
UC/LTER	University of Colorado, Niwot Ridge LTER Site	
UCAR/JOSS	University Corporation for Atmospheric Research Joint Office for Science Support	
UCAR/NOAA/JOSS/CODIAC	UCAR JOSS Cooperative Distributed Interactive Atmospheric Catalog System	
UCB	University of California, Berkeley	
UCB/MP	U. of California, Berkeley, Museum of Paleontology	
UCDAVIS	University of California, Davis	
UCI	University of California, Irvine	
UCLA/SPDC	UCLA Space Physics Data Center	
UCR	University of California, Riverside	
UCSB	University of California, Santa Barbara	

Valids	Descriptions	
UCSB/CRSEO	UCSB, Santa Barbara Center for Remote Sensing and Env. Optics	
UDA/FS/SO-FIA	USDA Southern Forest Experiment Station, Forest Inventory and Analysis	
UDEL/CCR	University of Delaware Center For Climate Research	
UEL	University of East London	
UF	University of Florida	
UGA	University of Georgia	
UGA/CLIM	University of Georgia, Office of the State Climatologist	
UGA/LTER	University of Georgia, Institute of Ecology	
UHI	University of Hawaii	
UHI/METO	University of Hawaii Meteorology Department	
UHI/SAC	University of Hawaii Shipboard ADCP Center	
UHI/SOEST	University of Hawaii School of Ocean and Earth Science and Technology	
UHI/SRSL	University of Hawaii, Satellite Remote Sensing Laboratory	
UI	University of Illinois	
UIA	University of Iowa	
UIUC	University of Illinois, Urbana-Champaign	
UK	University of Kentucky	
UM - MICHIGAN	University of Michigan	
UMASS/GEOL	University of Mass., Dept. of Geosciences	
UMD/ASTRON	University of Maryland Astronomy Department	
UMD/LGRSS	University of Maryland, Laboratory for Global Remote Sensing Studies	
UMD/METO	University of Maryland Meteorology Dept.	
UMD/METO/GSMDB	Global Soil Moisture Data Bank, University of Maryland, Dept. of Meteorology	
UME	University of Maine	
UMIAMI	University of Miami	
UMIAMI/RSMAS	Rosentiel School of Marine and Atmospheric Science, University of Miami	
UMN	University of Minnesota	
UMN/LTER	Univ. of Minnesota, Department of Ecology	
UMO	University of Missouri	
UN/PUBLICATIONS	United Nations, Publications Office	
UNAVCO	University NAVSTAR Consortium	
UNE	University of Nebraska	
UNEP	United Nations Environment Programme	
UNEP/EAD/GRID-GENEVA	UNEP - Environment Assessment Division - Global Information Database - Geneva	
UNEP/EAP-AP (GRID- BANGKOK)	UNEP - Environmental Assessment Programme for Asia and the Pacific	
UNEP/GRID-ARENDAL	United Nations Environment Programme Global Resource Information Database	
UNEP/GRID-GENEVA	United Nations Environment Programme Global Resource Information Database	
UNEP/GRID-INPE	United Nations Environment Programme Global Resource Information Database - INPE	
UNEP/GRID-NAIROBI	United Nations Environment Programme Global Resource Information Database	
UNEP/GRID-PAC	UNEP - Global Resource Information Database - Programme Activity Centre	
UNEP/GRID-TSUKUBA	UNEP / Global Resource Information Database - Tsukuba	

Valids	Descriptions	
UNEP/GRID-WARSAW	UNEP - Global Resource Information Database - Warsaw - Environmental Info Centre	
UNEP/HEM	United Nations Environment Programme, Harmonization of Environmental Measurement	
UNESCO/MAB	Man and the Biosphere Program	
UNFPA	United Nations Population Fund	
UNIDATA	Unidata, NSF	
UNI/ROMA	Universita di Roma La Sapienza, Dip. Fisica	
UNMEX/EDAC	University of New Mexico Earth Data Analysis Center	
UOK/OCS	University of Oklahoma, Oklahoma Climatological Survey	
UOKLA	University of Oklahoma	
UPR/TED	University of Puerto Rico	
URI	University of Rhode Island	
USAFETAC/OL-A	USAF Environmental Technical Applications Center, Operating Location-A	
USAFETAC/SAFB	USAF Environmental Technical Applications Center, Scott AFB	
USATEC	US Army Topographic Engineering Center	
USCB	United States Census Bureau	
USC/BARUCH/LTER	U. of South Carolina, Baruch Inst. for Marine Biology and Coastal Research	
USDA	United States Department of Agriculture	
USDA/ARS	Agricultural Research Service	
USDA/ARS/NAL	National Agricultural Library	
USDA/CSREES	Cooperative State Research, Education, and Extension Service, USDA	
USDA/ERS	Economic Research Service	
USDA/FS	Forest Service	
USDA/LTER	USDA Forest Service, Forestry Sciences Laboratory, Durham, NH	
USDA/NASS	National Agricultural Statistics Service	
USDA/NRCS	Natural Resources Conservation Service	
USDA/NRCS/NSSC	National Soil Survey Center	
USDA/NRCS/WCC	Water & Climate Center	
USDA/NRCS/WSR	World Soil Resources	
USDA/NSTL	National Soil Tilth Laboratory, USDA	
USDA/SCS/ALASKA	U.S. Soil Conservation Service, Alaska	
USDA/SCS/NCG	National Cartography and GIS Center	
USDOC	U.S. Department of Commerce	
USF/DMS	University of South Florida, Department of Marine Sciences	
USFWS/NWI	U.S. Fish and Wildlife Service, National Wetlands Inventory	
USGPO	U.S. Government Printing Office	
USGS	U.S. Geological Survey	
USGS/BARD	USGS San Francisco Bay Area Regional Database	
USGS/BRD	USGS Biological Resources Division	
USGS/BRD/CBI	USGS Biological Resources Division, Center for Biological Informatics	
USGS/BRD/LSC	USGS Biological Resources Division, Leetown Science Center	
USGS/BRD/MSC	USGS Biological Resources Division, Midwest Science Center	
USGS/BRD/NWHC	USGS Biological Resources Div., National Wildlife Health Center	

USGS/BRD/PATUXENT USGS Biological Resources Div., Patuxent Wildlife Res. Cntr. USGS/BRD/PATUXENT/BBL USGS Biological Resources Div., Patuxent Wildlife Res. Cntr., Bird Banding Lab. USGS/BRD/PATUXENT/BBS USGS Biological Resources Div., Patuxent Wildlife Res. Cntr., Bird Breeding Surv. USGS/DB Distribution Branch, Denver USGS/EDC/ALASKA EROS Data Center, Anchorage, AK		
USGS/BRD/PATUXENT/BBS USGS Biological Resources Div., Patuxent Wildlife Res. Cntr., Bird Breeding Surv. USGS/DB Distribution Branch, Denver		
USGS/DB Distribution Branch, Denver		
USGS/EDC/ALASKA EROS Data Center, Anchorage, AK		
USGS/EDC/GLIS USGS, EROS Data Center, Global Land Information System		
USGS/ESIC/ANCHORAGE Earth Science Information Center, Anchorage, Alaska		
USGS/ESIC/D.C. Earth Science Information Center, Washington, D.C.		
USGS/ESIC/DENVER Earth Science Information Center, Denver, Colorado		
USGS/ESIC/LAKEWOOD Earth Science Information Center, Lakewood/Denver, Colorado		
USGS/ESIC/LOS ANGELES Earth Science Information Center, Los Angeles, California		
USGS/ESIC/MENLO PARK Earth Science Information Center, Menlo Park, California		
USGS/ESIC/RESTON Earth Science Information Center, Reston, Virginia		
USGS/ESIC/ROLLA Earth Science Information Center, Rolla, Missouri		
USGS/ESIC/SALT LAKE CITY Earth Science Information Center, Salt Lake City, Utah		
USGS/ESIC/SAN FRANCISCO Earth Science Information Center, San Francisco, California		
USGS/ESIC/SPOKANE Earth Science Information Center, Spokane, Washington		
USGS/ESIC/STENNIS Earth Science Information Center, NASA Stennis Space Center, Mississippi		
USGS/GD/ANCHORAGE USGS, Geology Division, Anchorage, AK		
USGS/GD/DENVER USGS, Geology Division, Denver		
USGS/GD/GCRP USGS/Geology Division/Global Change Research Program		
USGS/GD/GOLDEN USGS, Geology Division, Golden, CO		
USGS/GD/MENLO PARK USGS, Geology Division, Menlo Park, CA		
USGS/GD/RESTON USGS, Geology Division, Reston, VA		
USGS/GD/RESTON/WOODS USGS Geology Division, Reston, VA., Woods Hole, MA HOLE		
USGS/GLIS/RESTON USGS/Global Land Information System, Reston, VA		
USGS/ISD Information Systems Division		
USGS/NEIC/GOLDEN USGS, National Earthquake Information Center, Golden, CO		
USGS/NMD USGS National Mapping Division		
USGS/NMD/RESTON National Mapping Division, Reston, VA		
USGS/OFR USGS Open File Reports Section		
USGS/OFS USGS Open File Services Section		
USGS/WHFC US Geological Survey, Woods Hole Field Center		
USGS/WRD/ALASKA USGS Water Resources Division, Anchorage, AK		
USGS/WRD/RESTON USGS Water Resources Division, Reston, VA		
USGS/WRMGS USGS Western Region Marine and Coastal Surveys		
USSR/HYDRO USSR Hydrographic Service, Research Oceanographic Centre		
USU/DGER Utah State University Department of Geography and Earth Resources		
USU/UCC Utah State University Utah Climate Center		
US_WOCE United States WOCE (World Ocean Circulation Experiment) Office		
UTASMAN University of Tasmania, Australia		

Valids	Descriptions
UTFSM	Universidad Tecnica Federico Santa Maria
UTOKYO/ORI	University of Tokyo, Ocean Research Institute
UTORONTO	University of Toronto
UUTAH	University of Utah Salt Lake City
UVA/LTER	University of Virginia, Department of Environmental Science
UVM	University of Vermont
UWA	University of Washington
UWA/GEOPHYS	University of Washington, Geophysics Program
UWA/PSC	University of Washington/Polar Science Center
UWI	University of Wisconsin
UWI/LTER	University of Wisconsin-Madison, Department of Limnology
UWI/MADISON/IES/CCR	U. Wisconsin Institute for Environmental Studies, Center for Climatic Research
UWI/MIL	University of Wisconsin-Milwaukee
UWI/SSEC	University of Wisconsin, Space Science and Engineering Center
VNIIGMI/WDC	All Union Research Institute of Hydrometeorological Information
VNIRO	All-Union Research Institute for Marine Fishing and Oceanography
VPI	Virginia Polytechnic Institute
VT/ANR	Vermont Agency of Natural Resources
VT/ANR/CGI	Vermont Agency of Natural Resources/Center for Geographic Information
VT/DEC	Vermont Department of Environmental Conservation
VUW	Victoria University Wellington, New Zealand
WATSTORE	National Water Data Storage and Retrieval System, USGS
WCMC	World Conservation Monitoring Centre
WDAI	WeatherDisc Associates, Inc.
WDC-A/GLACIOLOGY	World Data Center-A for Glaciology
WCC-A/HUMAN	World Data Center-A for Human Interactions in the Environment
WDC-A/MGG	World Data Center-A for Marine Geology and Geophysics
WDC-A/METEOROLOGY	World Data Center-A for Meteorology
WDC-A/OCEANOGRAPHY	World Data Center-A for Oceanography
WDC-A/PALEOCLIMATOLOGY	World Data Center-A for Paleoclimatology
WDC-A/REMOTE	World Data Center-A for Remotely Sensed Land Data
WDC-A/R&S	World Data Center-A Rockets and Satellites, NASA
WDC-A/ROTATION	World Data Center-A for Rotation of the Earth
WDC-A/SEISMOLOGY	World Data Center-A for Seismology
WDC-A/SEG	World Data Center-A for Solid Earth Geophysics
WDC-A/STP	World Data Center-A for Solar-Terrestrial Physics
WDC-A/TRACE	World Data Center-A for Trace Gases
WDC-B	World Data Center-B
WDC-B/MG&G	World Data Center-B for Marine Geology and Geophysics
WDC-B/METEOROLOGY	World Data Center-B for Meteorology
WDC-B SEP	World Data Center B for Solid Earth Physics
WDC-B/RIHMI	World Data Center-B Research Institute of Hydrometeorological Information

Valids	Descriptions
WDC-B/R&S	World Data Center-B for Rockets and Satellites
WDC-B/ROTATION	World Data Center-B for Rotation of the Earth
WDC-B1/OCEANOGRAPHY	World Data Center-B1 for Oceanography
WDC-B2/SEG	World Data Center-B2 for Solid Earth Geophysics
WDC-B2/STP	World Data Center-B2 for Solar-Terrestrial Physics
WDC-C1/TIDES	World Data Center-C1 for Earth Tides
WDC-C1/GEOMAGNETISM	World Data Center-C1 for Geomagnetism
WDC-C1/GLACIOLOGY	World Data Center-C1 for Glaciology
WDC-C1/CRUSTAL	World Data Center-C1 for Recent Crustal Movements
WDC-C1/SOILS	World Data Center-C1 for Soils
WDC-C1/SOLAR	World Data Center-C1 for Solar Activity
WDC-C1/STP	World Data Center-C1 for Solar-Terrestrial Physics
WDC-C1/SUNSPOTS	World Data Center-C1 for Sunspot Index
WDC-C2/AIRGLOW	World Data Center-C2 for Airglow
WDC-C2/AURORA	World Data Center-C2 for Aurora
WDC-C2/COSMICRAYS	World Data Center-C2 for Cosmic Rays
WDC-C2/GEOMAGNETISM	World Data Center-C2 for Geomagnetism
WDC-C2/IONOSPHERE	World Data Center-C2 for Ionosphere
WDC-C2/NUCLEAR	World Data Center-C2 for Nuclear Radiation
WDC-C2/SOLARRADIO	World Data Center-C2 for Solar Radio Emissions
WDC-C2/STA	World Data Center-C2 for Solar-Terrestrial Activity
WDC-D/ASTRONOMY	World Data Center-D for Astronomy
WDC-D/GEOLOGY	World Data Center-D for Geology
WDC-D/GEOPHYSICS	World Data Center-D for Geophysics
WDC-D/GLACIOLOGY	World Data Center-D for Glaciology and Geocryology
WDC-D/METEOROLOGY	World Data Center-D for Meteorology
WDC-D/OCEANOGRAPHY	World Data Center-D for Oceanography
WDC-D/RR&E	World Data Center-D for Renewable Resources & Environment
WDC-D/SEISMOLOGY	World Data Center-D for Seismology
WDC-D/SPACE	World Data Ceenter for Space Sciences
WDCGG	World Data Center for Greenhouse Gases
WFF/OSB	Wallops Flight Facility Observational Science Branch, NASA
WHOI	Woods Hole Oceanographic Institution
WHP_SAC	WOCE Hydrographic Programme Special Analysis Centre
WLDELFT	Delft Hydraulics
WMO	World Meteorological Organization
WODC	World Ozone Data Center
WPRCEPH	Wakayama Prefectural Research Center of Environment and Public Health
WRD/EC	Water Resources Directorate, EC
WRI	World Resources Institute
WSU/IAREC	Irrigated Agriculture Research and Extension Center
YCMT	Yuge National College of Maritime Technology

Valids	Descriptions	
YNU	Yokohama National University	
YPRIH	Yamaguchi Prefectural Research Institute of Health	
ZA	Zentralarchiv fuer empirische Socialforschung der Universitat zu Koeln	
ZEDX	ZEDX Inc.	
ZUDIS	Central Environmental Data Information System	

3.12 GeoSpatialForm

Description: A characterisation of the type of product, e.g. satellite image or map.

Sources: [FGDC Geospatial Data Presentation Form]

Default Valid:

Valids
atlas
diagram
globe
тар
model
profile
remote-sensing image
section
view
VIEW

3.13 GridCoordinateSystemName

Description: A plane-rectangular coordinate system usually based on, and mathematically adjusted to, a map projection so that geographic positions can be readily transformed to and from plane coordinates.

Sources: [FGDC Grid Coordinate System Name]

Valids	
Universal Transverse Mercator	
Universal Polar Stereographic	
State Plane Coordinate System 1927	
State Plane Coordinate System 1983	
ARC Coordinate System	
Other Grid System	

3.14 GroupId

Description: Identification of the user groups having access to specific options, e.g. for product order options may differ for each user group.

Sources: CIP defined

Default Valid:

Valids	
Anonymous	

3.15 InstrumentIdentifier/InstrumentName

Description (IstrumentIdentifier): A short identifier (acronym) for the instrument.

Description (IstrumentName): A text string (i.e. not an acronym) defining the instrument.

Sources: [GCMD Sensor]

InstrumentIdentifier Valids	InstrumentNameValids
AAS	Atomic Absorption Spectrometer
AATSR	Advanced Along-Track Scanning Radiometer
ACCELEROGRAPHS	
ACCELEROMETERS	
ACOUSTIC RADAR	
ACOUSTIC SOUNDERS	
ACRIM II	Active Cavity Radiometer Irradiance Monitor II
ACRIM	Active Cavity Radiometer Irradiance Monitor
ACTINOMETER	Radiation Thermocouple Actinometer
ADA	Atmospheric Density Accelerometer
ADCP	Acoustic Doppler Current Profiler
AEM	Airborne Electromagnetic Profiler
AEPI	Atmospheric Emissions Photometric Imaging
AEROVANES	
AEROSOL COLLECTORS	
AEROSOL MONITOR	
AEROSOL/CLOUD PARTICLE SIZER	
AERS	Atmospheric/Emitted Radiation Sensor
AES	Atmospheric Emission Spectrometer
AETHAELOMETER	
AIRBORNE TRACKING SUNPHOTOMETER	
AIRGLOW/AURORA IMAGER	
AIRGUN ARRAYS	
AIRS	Atmospheric Infrared Sounder

InstrumentIdentifier Valids	InstrumentNameValids
AIRSAR	Airborne Synthetic Aperture Radar
AIS	Arizona Imager Spectrograph
ALAE	Atmospheric Lyman-Alpha Emissions
ALT (TOPEX)	TOPEX Radar Altimeter
ALTIMETERS	
AMI	Active Microwave Instrument
AMMR	Airborne Multichannel Microwave Radiometer
AMMS	Advanced Microwave Moisture Sounder
AMPR	Advanced Microwave Precipitation Radiometer
AMPTE/IRM MAGNETOMETER	AMPTE/IRM Three-axis Fluxgate Magnetometer
AMSU	Advanced Microwave Sounding Unit
ANEMOMETERS	
ANEROID PRESSURE SENSOR	
AOLFL	Airborne Oceanographic Lidar Fluorosensor
ARMAR	Airborne Rain Mapping Radar
ARWS	Automatic Remote Weather Station
AS	Absorption Spectrophotometry
ASAR	Advanced Synthetic Aperature Radar
ASAS	Advanced Solid-state Array Spectroradiometer
ASC	All-Sky Camera
ASOS	Automated Surface Observing System
ASS	Atomic Absorption Spectrophotometry
ASTER	Advanced Spaceborne Thermal Emission and Reflection Radiometer
ATM	Airborne Topographic Mapper
ATMOS	Atmospheric Trace Molecule Spectroscopy
ATSR	Along Track Scanning Radiometer and Microwave Sounder
AUTOANALYZER	
AUTOMATIC ANALYZER	
AVHRR	Advanced Very High Resolution Radiometer
AVIRIS	Airborne Visible and Infrared Imaging Spectrometer
AVNIR	Advanced Visible and Near-Infrared Radiometer
AWOS	Automated Weather Observing System
AWQT	Apparatus for Water Quality Test
BAROMETERS	
BATHYPHOTOMETER	
BATHYTHERMOGRAPHS	
BATSE	Burst And Transient Source Experiment
BBHSR	Broad Spectral Bandpass Hemispherical Solar Radiometer
BCS	Bragg Crystal Spectrometer
BEDLOAD SENSORS	
BIMS	Bennett Ion-Mass Spectrometer
BL	Balance

InstrumentIdentifier Valids	InstrumentNameValids
BLIP	Boundary Layer Instrument Package
BOLOMETERS	
BOPS	Bio Optical Profiling System
BOTTOM PRESSURE GAUGES	
BRTS	Background Radiometric Temperature Sensors
BUV	Backscatter Ultraviolet
C/P	Coronagraph/Polarimeter
CAMERAS	
CAMI	Carbon Monoxide Automatic Measuring Instrument
CASI	Compact Airborne Spectrographic Imager
CEILOMETERS	
CEP	Cylindrical Electrostatic Probe
CERES	Clouds and Earth's Radiant Energy System
CHN ANALYZERS	Carbon, Hydrogen, Nitrogen Analyzers
CLAES	Cryogenic Limb Array Etalon Spectrometer
CLASS	C-LORAN Atmospheric Sounding System
CLOUD LIQUID WATER PROBE	
CLOUD TOP SPECTROMETER	
COLSPEC	Correlation Spectrometer
CNC	Condensation Nuclei Counter
CO2 ANALYZERS	
COMPASSES	
CONDUCTIVITY METERS	
CORING DEVICES	
CORONAGRAPHS	
COULOMETERS	
CRWVA	Combined Recording Wind Vane Anemograph
CSR	Compressive Strength Recorder
C-SCAT	C-Band Scatteromter
CTD	Conductivity, Temperature, Depth
CURRENT METERS	
CZCS	Coastal Zone Color Scanner
DAEDALUS TMS	Daedalus Thematic Mapper Simulator
DCP	Data Collection Platform
DENDROMETERS	
DEWPOINT HYDROMETERS	
DIAL	Differential Absorption Lidar
DIFFERENTIAL MOBILITY ANALYZERS	
DIGITIZER	
DOAS	Differential Optical Absorption Spectrometers
DOBSON SPECTROPHOTOMETERS	
DOPPLER BEACONS	

InstrumentIdentifier Valids	InstrumentNameValids
DOPPLER RADAR	
DORIS	Doppler Orbitography and Radiopositioning Integrated by Satellite
DREDGING DEVICES	
DRIFTING BUOYS	
DROGUES	
DROPSONDES	
DROPWINDSONDES	
DRY DEPOSITION COLLECTORS	
EB SPECTROMETER	Ebert-Fastie Spectrometer
ECHO SOUNDERS	
EDDY CORRELATION DEVICES	
EDM	Electromagnetic Direction Meter
EGC	Electron Gas Chromatograph
ELECTROSTATIC ANALYZERS	
ELDORA	Electra Doppler Radar
ELECTRON MICROPROBES	The state of the s
EQUILIBRATORS .	
ERB	Earth Radiation Budget
ERBE	Earth Radiation Budget Experiment
ERS WIND SCATTEROMETER	<u> </u>
ESMR	Electronic Scanning Microwave Radiometer
ESUM	Extreme Solar UV Monitor
EUV SPECTROMETER	Extreme UV Spectrometer
EUVS	Solar Extreme Ultraviolet Spectrophotometer
FILTERABLE DEPOSIT JAR SAMPLER	
FLAME-IONIZATION DETECTOR	
FLASKS	
FLUOROMETERS	
FLUXGATE MAGNETOMETERS	
FOURIER TRANSFORM SPECTROMETERS	
FPI	Fabry-Perot Interferometer
FS	Fluorescence Spectroscopy
FSI	Filter Sampling Instrument
FTIR SPECTROMETER	Fourier Transform Infrared Spectrometer
GAMMA RADIATION DETECTOR	
GAMMA RAY SPECTROMETERS	
GAS CHROMATOGRAPHS	
GAS CORRELATION FILTERS	
GEK	Geomagnetic Electrokinetographs
GEOPHONES	
GLAS	Geoscience Laser Altimeter System
GLORIA	Geological Long-Range Inclined ASDIC

InstrumentIdentifier Valids	InstrumentNameValids
GOES IMAGER	
GOME	Global Ozone Monitoring Experiment
GOMOS	Global Ozone Monitoring by Occultation of Stars
GONG INSTRUMENT	Global Oscillation Network Group Instrument
GONG NETWORK	Global Oscillation Network Group Network
GPS RECEIVERS	·
GPS	Global Positioning System
GRAB SAMPLERS	
GRAVIMETERS	
GREEN CORONAGRAPH	
GRILLE	Grille Spectrometer
GROUND WATER LEVEL GAUGES	
GUST PROBES	
GYROS	
HALOE	Halogen Occultation Experiment
HAMI	Hydrocarbon Automatic Measuring Instrument
HARD X-RAY MONITOR	
HCMR	Heat Capacity Mapping Radiometer
HELIOGRAPHS	
HEPAD	High Energy Proton and Alpha Detector
HFOVR	Hemispherical Field of View Radiometer
HIRDLS	High-Resolution Dynamics Limb Sounder
HIRS	High Resolution Infrared Radiation Sounder
HIRS/2	High Resolution Infrared Radiation Sounder/2
HIS	High Resolution Interferometer Sounder
HPGE	Hyperpure Germanium
HPLC	High-Performance Liquid Chromatograph
HRDI	High Resolution Doppler Imager
HRIR	High-Resolution Infrared Radiometer
HRR	High Resolution Radiometer
HRTS	High Resolution Telescope and Spectrograph
HRV	High Resolution Visible Imaging System
HSRL	High Spectral Resolution Lidar
HUMIDITY TRANSDUCERS	
HVAS	High Volume Air Sampler
HXIS	Hard X-ray Imaging Spectrometer
HXRBS	Hard X-ray Burst Spectrometer
HXT	Hard X-ray Telescope
HYDROPHONES	
HYGROMETERS	
HYGROTHERMOGRAPHS	
HYPSOMETERS	

InstrumentIdentifier Valids	InstrumentNameValids
ICE AUGERS	
ICE STRESS SENSORS	
IDM	Ion Drift Meter
IES	Inverted Echo Sounders
IKAR	Multichannel Microwave Radiometric System
ILAS	Improved Limb Atmospheric Spectrometer
IMAGING RADAR SYSTEMS	Imaging Radar Systems, Real and Synthetic Aperture
IMAGING RADIOMETERS	
IMG	Interferometric Monitor for Greenhouse Gases
INCLINOMETERS	
INCOHERENT SCATTER RADAR	
INFRARED RADIOMETERS	
INFRARED THERMOMETERS	
INFRASONIC MICROPHONES	
INS	Inertial Navigation System
INTERFEROMETERS	
ION CHROMATOGRAPHS	
IONIZATION CHAMBER	
IONIZATION PRESSURE GAUGES	
IONOZONDES	
IRGA	Infrared Gas Analyzers
IRIS	Infrared Interferometer Spectrometer
IRS	Infrared Radiometer/Spectrometer
ISAMS	Improved Stratospheric And Mesospheric Sounder
ISO	Imaging Spectrometric Observatory
ISS	Integrated Sounding System
K-LINE CCD/SOLAR OSCILLATIONS	
KNOLLENBERG PROBE	
LAND SUBSIDENCE GAUGES	
LASER REFLECTOR	
LASER SPECTROMETER	
LASER TRACKING REFLECTOR	
LASERS	Light Amplification by Stimulated Emission of Radiation
LBLSC	Low Background Liquid Scintillation Counter
LEED	Low Energy Electron Detectors
LFC	Large Format Camera
LICOR GAS EXCHANGE SYSTEM	
LICOR INTEGRATING SPHERE	
LICOR LEAF AREA METER	
LICOR PLANT CANOPY ANALYZER	
LICOR QUANTUM SENSOR	
LICOR SOIL GAS CHAMBER	

InstrumentIdentifier Valids	InstrumentNameValids
LIDAR	Light Detection and Ranging
LIMS	Limb Infrared Monitor of the Stratosphere
LIP	Lightning Instrument Package
LIS	Ligtning Imaging Sensor
LLLTV	Low Light Level TV
LONG STREAMERS	
LOPC-PMS	Laser Optical Particle Counter
LORAN	Long Range Navigation
LPSP	Multichannel High Resolution UV and Visible Spectrometer
LRA	Laser Retroreflector Array
LRGM	Lacoste-Romberg Gravity Meter
LRR	Laser Retro-Reflector
LYMAN-ALPHA PHOTOMETER	
LYSIMETERS	
MAGNETOGRAPHS	
MAGNETOMETERS	
MAGNETO OPTICAL FILTER	
MAGVAR	Magnetic Variometer
MAPS	Measurement of Air Pollution from Satellite
MARK IV INTERFEROMETER	· ·
MAS	MODIS Airborne Simulator
MAS/ATLAS	Millimeter-wave Atmospheric Sounder
MASP	Mobile Automatic Scanning Photometer
MASS SPECTROMETERS	
MBT	Mechanical Bathythermographs
MEIS	Multispectral Electro-optical Imaging Sensor
MEPAD	Medium Energy Proton and Alpha Detector
MERIS	Medium Resolution Imaging Spectrometer
MESA	Miniature Electrostatic Analyzer
MESSR	Multispectral Electronic Self-Scanning Radiometer
MFR	Multichannel Flux Radiometer
MFRSR	Multifilter Rotating Shadowband Radiometer and Broadband Pyranometer
MHS	Microwave Humidity Sounder
MICHELSON INTERFEROMETER	
MICROBAROGRAPHS	
MICROSCOPES	
MICROWAVE RADIOMETER	
MIMR	Multifrequency Imaging Microwave Radiometer
MIMS	Magnetic Ion-Mass Spectrometer
MINARAD RST-10	
MIPAS	Michelson Interferometer for Passive Atmospheric Sounding

InstrumentIdentifier Valids	InstrumentNameValids
MIR	Millimeter Imaging Radiometer
MISR	Multi-Angle Imaging SpectroRadiometer
MLA	Multi-Linear Array
MLS	Microwave Limb Sounder
MMR	Modular Multiband Radiometer
MMS	Meteorological Measurement System
MOBLAS	Mobile Laser Systems
MOCNESS	MOCNESS Plankton Net
MODIS AIRBORNE SIMULATOR	
MODIS	Moderate-Resolution Imaging Spectroradiometer
MOMS-01	Modular Optoelectronic Multispectral Scanner
MOMS-02	Modular Optoelectronic Multispectral Stereo Scanner
MONOCHROMATORS	
MOP VIS/IR	MOP Imaging Radiometer
MOPITT	Measurement of Pollution in the Troposphere
MRIR	Medium-Resolution Infrared Radiometer
MSBSP	Multi-Spectral Band Sun Photometer
MSFC VECTOR MAGNETOGRAPH	
MSIR	Multispectral Imaging Radiometer
MSR	Microwave Scanning Radiometer
MSS	Multispectral Scanner
MSU	Microwave Sounding Unit
MSU-E	Multichannel High Resolution Electronic Scanner
MSU-SK	Multichannel Middle Resolution Conical Scanner
MULTICHANNEL FILTER RADIOMETERS	
MWA	Multiple Water Analyzer
NACE	Neutral Atmosphere Composition Experiment
NANSEN BOTTLES	Nansen Water Sampling Bottles
NATE	Neutral Atmosphere Temperature Experiment
NDIR GAS ANALYZER	Nondispersive Infrared Gas Analyzer
NEAR-INFRARED SPECTROMETER	
NEPHELOMETERS	
NEUTRON MONITORS	
NEUTRON PROBE	
NEXRAD	NEXt Generation RADar
NFOVR	Narrow Field of View Radiometer
NISKIN BOTTLES	
NMLR	Nebraska Multiband Leaf Radiometer
NOMI	Nitrogen Oxide Measuring Instrument
NS-001 TMS	NS-001 Thematic Mapper Simulator
NSCAT	NASA Scatterometer
NUCLEAR PRECESSION MAGNETOMETER	

InstrumentIdentifier Valids	InstrumentNameValids
OAMI	Oxidants Automatic Measuring Instrument
OCE	Ocean Color Experiment
OCPS	Orbiter Camera Payload System
OCTS	Ocean Color and Temperature Scanner
OLS	Operational Linescan System
OMEGASONDE	
OMI	Ozone Measuring Instrument
OPTICAL BEACON	
OPTICAL TELESCOPES	
OPTICAL TRACKING	
ORG	Optical Rain Gauge
OSMOMETERS	
OSS	Open-Source Neutral Mass Spectrometer
OTD	Optical Transient Detector
OXYGEN ANALYZERS	
OXYGEN METERS	
OZONE DETECTORS	
OZONE MONITORS	
OZONEMETERS	
OZONESONDES	
P-SYSTEM	High Pressure Gas Sampling System
PAM	Portable Automated Mesonet
PARTICLE DETECTORS	
PARTICLE SPECTROMETERS	
PASSIVE OPTICAL TRACKING	
PCASP	Passive-Cavity Aerosol Spectrometer Probe
PEM	Particle Environment Monitor
PENETROMETERS	
PERMEAMETERS	
PES	Photoelectron Spectrometer
PH METERS	
PHASE CONTRAST MICROSCOPES	
PHOTOMETERS	
PHOTOSYNTHESIS CHAMBER	
PIEZOMETERS	
PLA	Panchromatic Linear Array
PLANKTON NETS	
PLANT STRESS MONITOR	
PMS	Particle Measuring System
POLARIMETERS	
POLDER	Polarization/Directionality of the Earth's Reflectance
PORTOS	Radiometer Hyper-frequence Multi-frequence

InstrumentIdentifier Valids	InstrumentNameValids
PRARE	Precise Range and Range-Rate Equipment
PRESSURE GAUGES	
PRESSURE JUMP DETECTOR	
PRESSURE TRANSDUCERS	
PROBES	
PROFILERS	
PROFS	Program for Regional Observing and Forecast Systems Mesonet
PROTON MAGNETOMETER	
PRT	Precision Radiation Thermometers
PSYCHROMETERS	
PTGA	Propeller Type Generating Anemovane
PYRANOGRAPHS	
PYRANOMETERS	
PYRGEOMETERS	
PYRHELIOMETERS	
PYRRADIOMETERS	
QUARTZ CRYSTAL THERMOMETER	
RA	ERS Radar Altimeter
RA-2	Radar Altimeter-2
RAD GAUGE	Ram Atmosphere Density Gauge
RADAR ALTIMETERS	
RADAR ECHO SOUNDERS	
RADAR	Radio Detection and Ranging
RADIO BURST RECEIVERS	
RADIO TELESCOPES	
RADIO TRANSMITTERS	
RADIO TRANSPONDERS	
RADIOMETERS	
RADIOSONDES	
RAIN GAUGES	
RAMS	Radiation Measurement System
RASS	Radio Acoustic Sounding System
RAWINSONDES	
RBV	Return Beam Vidicon
RED CORONAGRAPH	
RF ANTENNA	
RIOMETER	Relative Ionospheric Opacity Meter
RIS	Retroreflector in Space
ROCK CORERS	
ROCKETSONDES	
ROSEMOUNT PRESSURE GAUGE	
RPA	Retarding Potential Analyzer

InstrumentIdentifier Valids	InstrumentNameValids
RRS	Reflected Radiation Sensor
RT	Reversing Thermometer
SAGE I	Stratospheric Aerosol and Gas Experiment I
SAGE II	Stratospheric Aerosol and Gas Experiment II
SAGE III	Stratospheric Aerosol and Gas Experiment III
SALINOMETERS	
SAMI	SO2 Automatic Measuring Instrument
SAMS	Stratospheric and Mesospheric Sounder
SAR	Synthetic Aperture Radar
SASS	SEASAT-A Scatterometer System
SBT	Select-Level Bathythermographs
SBUV	Solar Backscatter Ultraviolet
SBUV/2	Solar Backscatter Ultraviolet/2
SCA	Spatial Coordinate Apparatus
SCANNING ELECTRON MICROSCOPES	
SCARAB	The Scanner for Radiation Budget
SCATTEROMETERS	
SCHOLANDER PRESSURE CHAMBER	
SCIAMACHY	Scanning Imaging Absorption Spectrometer for Atmospheric Chartography
SCINTILLATION COUNTERS	
SCR	Selective Chopper Radiometer
SCRIPPS SHELF AND SHORE SYSTEM	
SDPTR	Satellite Doppler Positioning Transit Receivers
SDTA	Satellite Drag Tracking Apparatus
SEASOAR	
SEAWIFS	Sea-Viewing Wide Field-of-View Sensor
SECCHI DISKS	
SEDIMENT CORERS	
SEDIMENT METERS	
SEDIMENT TRAPS	
SEISMIC REFLECTION PROFILERS	
SEISMOGRAPHS	
SEISMOMETERS	
SEM	Space Environment Monitor
SENSORS	Airglow Sensor
SFM	Spectrofluorometer
SIDE-SCAN SONAR	
SILICON PHOTODIODES	
SIR-A	Shuttle Imaging Radar-A
SIR-B	Shuttle Imaging Radar-B
SIR-C	Spaceborne Imaging Radar-C

InstrumentIdentifier Valids	InstrumentNameValids
SIRIS	Stratospheric Infrared Interferometer Spectrometer
SIRS	Satellite Infrared Spectrometer
SLAR	Side-Looking Airborne Radar
SLR	Satellite Laser Ranging
SLRAR	Side-Looking Real Aperature Radar
SMM-HXIS	SMM Hard X-ray Imaging Spectrometer
SMMR	Scanning Multichannel Microwave Radiometer
SNOW MEASURING ROD	
SODAR	Sound Detection and Ranging
SOIL DEPTH PROBE	
SOIL HEAT FLUX TRANSDUCER	
SOIL HEAT PROBE	
SOIL MOISTURE PROBE	
SOIL SAMPLER	
SOIL TEMPERATURE PROBE	
SOLARIMETERS	
SOLAR TELESCOPES	
SOLAR TEMPERATURE PROBE	
SOLAR UV SPECTROMETERS	
SOLCON	Measurement of the Solar Constant
SOLSPEC	Solar Spectrum Measurement
SOLSTICE	Solar-Stellar Irradiance Comparison Experiment
SOMMA	Single Operator Multiparameter Metabolic Analyzer
SONAR	Sound Navigation and Ranging
SONOBUOYS	
SOON SOLAR TELESCOPES	
SOUNDERS	
SOUP	Solar Optical Universal Polarimeter
SPECIFIC ION METERS	
SPECTROGRAPHS	
SPECTROHELIOGRAPHS	
SPECTROMETERS	
SPECTROPHOTOMETERS	
SPECTRORADIOMETERS	
SPIN-SCAN AURORAL IMAGER	
SPMAMI	Suspended Particulate Matter Automatic Measuring Instrument
SR	Scanning Radiometer
SSALT	POSEIDON Solid State Radar Altimeter
SSBUV	Shuttle Solar Backscatter Ultraviolet
SSCC	Spin Scan Cloud Camera
SSI/ES	Special Sensor Ionospheric Plasma Monitor
SSJ/4	Precipitating Plasma Monitor

InstrumentIdentifier Valids	InstrumentNameValids
SSM/I	Special Sensor Microwave/Imager
SSM/T	Special Sensor Microwave/Temperature
SSM/T-2	Special Sensor Microwave/Temperature Profiler
SSU	Stratospheric Sounding Unit
STD	Salinity, Temperature, Depth
STEP FREQUENCY RADIOMETERS	
STOKES POLARIMETER	
STREAM GAUGES	
SUN PHOTOMETERS	
SUNSHINE RECORDERS	
SUSIM	Solar Ultraviolet Spectral Irradiance Monitor
SWMS	Surface Water Monitoring System
SWIR	Short Wavelength Infrared Radiometer
SXT	Soft X-ray Telescope
TCISS	TOGA COARE Integrated Sounding System
TDDR	Total-Direct-Diffuse Multichannel Radiometer
TDR	Time Domain Reflectometry Probe
TED	Total Energy Detector
TELESCOPES	
TEMPERATURE PROFILERS	
TES	Tropospheric Emission Spectrometer
TETHERSONDES	
THERMISTORS	
THERMOCOUPLES	
THERMOMETERS	
THERMOSALINOGRAPHS	
THIR	Temperature-Humidity Infrared Radiometer
TIDE GAUGES	
TIMS	Thermal Infrared Multispectral Scanner
TLPCS	Thermoluminescence Photon Counting System
TLRS	Transportable Laser Ranging Systems
TM	Thematic Mapper
TMR	TOPEX Microwave Radiometer
TMS	Thematic Mapper Simulator
TOC	Total Organic Carbon Analyzer
TOMS	Total Ozone Mapping Spectrometer
TOVS	TIROS Operational Vertical Sounder
TRANSMISSOMETERS	
TRANSPARENCY METER	
TRANSPONDERS	
TURBIDITY METERS	
UCN UCN	Ultrafine Condensation Nucleus Counter

InstrumentIdentifier Valids	InstrumentNameValids
UMKEHR OBSERVATIONS	
USIM	Underwater Spectral Irradiance Meter
UV OZONE DETECTORS	Ultraviolet Ozone Detectors
UV SPECTROMETER	Ultraviolet Ozone Spectrometer
UVIC	UV Ion Chamber
UVNO	Ultraviolet Nitric Oxide Spectrometer
UVSP	Ultraviolet Spectrometer and Polarimeter
VAE	Visible Airglow Photometer
VAS	VISSR Atmospheric Sounder
VECTOR MAGNETOGRAPHS	
VERTICAL POINTING RADAR	
VIL	Volume Imaging Lidar
VIRL	Visible and Near IR Lidar
VIRR	Visible and Infrared Radiometer
VISIBLE SPECTROMETER	
VISSR	Visible and Infrared Spin Scan Radiometer
VISUAL OBSERVATIONS	
VLA	The Very Large Array
VLBI	Very Long Baseline Interferometry
VNIR	Visible and Near Infrared Radiometer
VOLTAGE METERS	
VPR	Video Plankton Recorder
VTIR	Visible and Thermal Infrared Radiometer
VTPR	Vertical Temperature Profile Radiometer
WATER BOTTLES	
WATERGUNS	
WATER LEVEL GAUGES	
WATS	Wind and Temperature Spectrometer
WAVE HEIGHT GAUGES	
WBS	Wide Band Spectrometer
WELL LOGGING TOOLS	
WET/DRY PRECIPITATION SAMPLERS	
WF	Weather Fax
WIND PROFILERS	
WIND VANES	
WINDII	Wind Imaging Interferometer
XRD	X-ray Diffractometer
X-RAY FLUORESCENCE SPECTROMETER	
X-RAY TELESCOPE	
X-SAR	X-Band Synthetic Aperture Radar
XBT	Expendable Bathythermographs
XRP	X-Ray Polychromator

3.16 ItemDeliveryMethod

Description: The method by which an item is delivered

Sources: CIP defined

Default Valid:

Valids	
FTP	
E-MAIL	
POST	

3.17 ItemDescriptorLanguage/ ItemLanguage

Description (ItemDescriptorLanguage) The language in which the item descriptor is defined.

Description (ItemLanguage) The language in which any textual information within the

deliverable item is defined.

Sources: [ISO Language]

Default Valid: English

Valids	ISO-639 code
Abkhazian	ab
Afan Oromo	om
Afar	aa
Afrikaans	af
Albanian	sq
Amharic	ат
Arabic	ar
Armenian	hy
Assamese	as
Aymara	ay
Azerbaijani	az
Bashkir	ba
Basque	eu
Bengali	bn
Bhutani	dz
Bihari	bh
Bislama	bi
Breton	br
Bulgarian	bg

Valids	ISO-639 code
Burmese	my
Byelorussian	be
Cambodian	km
Catalan	ca
Chinese	zh
Corsican	co
Croatian	hr
Czech	cs
Danish	da
Dutch	nl
English	en
Esperanto	eo
Estonian	et
Faroese	fo
Fiji	fi
Finnish	fi
French	fr
Frisian	fy
Galician	gl
Georgian	ka
German	de
Greek	el
Greenlandic	kl
Guarani	
Gujarati	gn
Hausa	gu ha
Hebrew	
Hindi	hi
Hungarian	hu
Icelandic	is
Indonesian	in
Interlingua	ia
Interlingue	ie .,
Inupiak Luiah	ik
Irish	ga :4
Italian	it
Japanese	ja
Javanese	jv
Kannada	kn
Kashmiri	ks
Kazakh	kk
Kinyarwanda	rw

Valids	ISO-639 code
Kirghiz	ky
Kirundi	rn
Korean	ko
Kurdish	ku
Laothian	lo
Latin	la
Lettish	lv
Lingala	ln
Lithuanian	lt
Macedonian	mk
Malagasy	mg
Malay	ms
Malayalam	ml
Maltese	mt
Maori	mi
Marathi	mr
Moldavian	mo
Mongolian	mn
Nauru	na
Nepali	ne
Norwegian	no
Occitan	oc
Oriya	or
Pashto	ps
Persian	fa
Polish	pl
Portuguese	pt
Punjabi	pa
Quechua	qu
Rhaeto-Romance	rm
Romanian	ro
Russian	ru
Samoan	sm
Sangho	sg
Sanskrit	sa
Scots Gaelic	gd
Serbian	sr
Serbo-Croatian	sh
Sesotho	st
Setswana	tn
Shona	sn
Sindhi	sd

Valids	ISO-639 code
Singhalese	si
Siswati	SS
Slovak	sk
Slovenian	sl
Somali	so
Spanish	ese
Sundanese	su
Swahili	sw
Swedish	sv
Tagalog	tl
Tajik	tg
Tamil	ta
Tatar	tt
Telugu	te
Thai	th
Tibetan	bo
Tigrinya	ti
Tonga	to
Tsonga	ts
Turkish	tr
Turkmen	tk
Twi	tw
Ukrainian	uk
Urdu	ur
Uzbek	uz
Vietnamese	vi
Volap i i	vo
Welsh	cy
Wolof	wo
Xhosa	xh
Yiddish	ji
Yoruba	yo
Zulu	zu

${\bf 3.18}\>\> Local Attribute Value Syntax$

Description: Value syntax (i.e. type) of a local attribute

Sources: CIP defined

Valids	
STRING	

Valids
INTEGER
REAL
ENUM
compound
TIME

3.19 LocalUseAttributeFlag

Description: Flag indicating whether:

a collection has no local attributes (value = 0)

a collection has local attributes defined within the collection descriptor (value = 1)

a collection has local attributes defined in the Explain database (value = 2)

Sources: CIP defined

Default Valid: 0

Valids	Description
0	A collection has no local attributes
1	A collection has local attributes defined within the collection descriptor
2	A collection has local attributes defined in the Explain database

3.20 MapProjectionName

Description: Name of the map projection.

Sources: [FGDC Map Projection Name]

Valids
Albers Conical Equal Area
Azimuthal Equidistant
Equidistant Conic
Equirectangular
General Vertical Near-sided Projection
Gnomomic
Lambert Azimuthal Equal Area
Lambert Conformal Conic
Mercator
Modified Stereographic for Alaska
Miller Cylindrical

Valids
Oblique Mercator
Orthographic
Polar Stereographic
Polyconic
Robinson
Sinusoidal
Space Oblique Mercator
Stereographic
Transverse Mercator
van der Grinten
Other Projection

3.21 MissionId

Description: Unique code for the satellite/mission.

Sources: [GCMD Source]

Valids	Description
AD-A	Atmosphere Dynamics A (Explorer 19)
AD-B	Atmosphere Dynamics B (Explorer 24)
AD-C	Atmosphere Dynamics B (Explorer 39)
ADEOS	Advanced Earth Observing Satellite
AE-A	Atmosphere Explorer A (Explorer 17)
AE-B	Atmosphere Explorer B (Explorer 32)
AE-C	Atmosphere Explorer C (Explorer 51)
AE-D	Atmosphere Explorer D (Explorer 54)
AE-E	Atmosphere Explorer E (Explorer 55)
AEM-1	Applications Explorer Mission-1
AEM-2	Applications Explorer Mission-2
AEM-3	Applications Explorer Mission-3
AEROS 2	
AEROS	
AES	Atmospheric Environment Service
AIRCRAFT	
AJISAI	Experimental Geodetic Satellite (Japanese EGS)
ALOUETTE 1	
ALOUETTE 2	
APOLLO	
APOLLO-SOYUZ	
ARAT	Avion de Recherche Atmospherique et de Teledetection

Valids	Description
ARGOS	ARGOS Data Collection and Position Location System
ATLAS	Atmospheric Laboratory for Applications and Science
ATLAS MOORINGS	Autonomous Temperature Line Acquisition System
ATS-1	Advanced Technology Satellite-1
ATS-2	Advanced Technology Satellite-2
ATS-3	Advanced Technology Satellite-3
ATS-4	Advanced Technology Satellite-4
BALLOONS	
BAPMON	Background Air Pollution Monitoring Stations
BE-B	Beacon Explorer-B
BE-C	Beacon Explorer-C
BUOYS	
C-MAN	Coastal Marine Network
CMDL	NOAA Climate Monitoring Diagnostics Laboratory Stations
COSMOS 1500	
COSMOS 49	
CRRES	Combined Release and Radiation Effects Satellite
DASH-2	
DE-1	Dynamics Explorer-1
DE-2	Dynamics Explorer-2
DEM	Digital Elevation Model
DMSP 5B/F3	Defense Meteorological Satellite Program-F3
DMSP 5D-1/F1	Defense Meteorological Satellite Program-F1
DMSP 5D-1/F2	Defense Meteorological Satellite Program-F2
DMSP 5D-1/F3	Defense Meteorological Satellite Program-F3
DMSP 5D-1/F4	Defense Meteorological Satellite Program-F4
DMSP 5D-2/F7	Defense Meteorological Satellite Program-F7
DMSP 5D-2/F8	Defense Meteorological Satellite Program-F8
DMSP 5D-2/F9	Defense Meteorological Satellite Program-F9
DMSP 5D-2/F10	Defense Meteorological Satellite Program-F10
DMSP 5D-2/F11	Defense Meteorological Satellite Program-F11
DMSP 5D-2/F12	Defense Meteorological Satellite Program-F12
DMSP 5D-2/F13	Defense Meteorological Satellite Program-F13
DMSP 5D-2/F14	Defense Meteorological Satellite Program-F14
DMSP	Defense Meteorological Satellite Program
DRILLING PLATFORMS	
ЕСНО 1	
ЕСНО 2	
ENVISAT-1	Environmental Satellite 1
EOLE	
EOS AM-1	Earth Observing System, AM-1
EOS CHEM-1	Earth Observing System, Chemistry Series

Valids	Description	
EOS LASER ALT	Earth Observing System, Laser Altimeter	
EOS PM-1	Earth Observing System, PM-1	
EP-TOMS	Earth Probe-TOMS	
ERBS	Earth Radiation Budget Satellite	
ERS-1	European Remote Sensing Satellite-1	
ERS-2	European Remote Sensing Satellite-2	
ESSA 1	Environmental Science Services Administration 1	
ESSA 2	Environmental Science Services Administration 2	
ESSA 3	Environmental Science Services Administration 3	
ESSA 4	Environmental Science Services Administration 4	
ESSA 5	Environmental Science Services Administration 5	
ESSA 6	Environmental Science Services Administration 6	
ESSA 7	Environmental Science Services Administration 7	
ESSA 8	Environmental Science Services Administration 8	
ESSA 9	Environmental Science Services Administration 9	
ESSA	Environmental Science Services Administration	
ETALON I		
ETALON 2		
EXOS-A		
EXPLORER 33	Interplanetary Monitoring Platform D (IMP-D)	
EXPLORER 35	Interplanetary Monitoring Platform D (IMP-E)	
EXPLORER 9	Air Density Balloon	
FDSN	Federation of Digital Seismographic Networks	
FIELD SURVEYS		
FIXED OBSERVATION STATIONS		
GCM	General Circulation Model	
GEMINI		
GEMINI 10		
GEMINI 11		
GEMINI 12		
GEMINI 3		
GEMINI 4		
GEMINI 5		
GEMINI 6		
GEMINI 7		
GEMINI 8		
GEMINI 9		
GEODYNAMIC STATIONS		
GEOMAGNETIC STATIONS		
GEOS 1	Geodetic Earth Orbiting Satellite 1	
GEOS 2	Geodetic Earth Orbiting Satellite 2	
GEOS 3	Geodetic Earth Orbiting Satellite 3	

Valids	Description	
GEOSAT	Geodetic Satellite	
GEOSTATIONARY SATELLITES		
GMCC	NOAA Geophysical Monitoring for Climatic Change Stations	
GMS	Japan Geostationary Meteorological Satellite	
GMS-I	Geostationary Meteorological Satellite-1	
GMS-2	Geostationary Meteorological Satellite-2	
GMS-3	Geostationary Meteorological Satellite-3	
GMS-4	Geostationary Meteorological Satellite-4	
GMS-5	Geostationary Meteorological Satellite-5	
GOES	NOAA Geostationary Operational Environmental Satellites	
GOES-1	Geostationary Operational Environmental Satellite 1	
GOES-2	Geostationary Operational Environmental Satellite 2	
GOES-3	Geostationary Operational Environmental Satellite 3	
GOES-4	Geostationary Operational Environmental Satellite 4	
GOES-5	Geostationary Operational Environmental Satellite 5	
GOES-6	Geostationary Operational Environmental Satellite 6	
GOES-7	Geostationary Operational Environmental Satellite 7	
GOES-8	Geostationary Operational Environmental Satellite 8	
GOES-9	Geostationary Operational Environmental Satellite 9	
GOES-10	Geostationary Operational Environmental Satellite 10	
GPS	Global Positioning System Satellites	
GRAVITY STATIONS		
GRO	Gamma-Ray Observatory	
GROUND STATIONS		
GROUND-BASED OBSERVATIONS		
GSN	Global Seismic Network	
НСММ	Heat Capacity Mapping Mission	
HELICOPTER		
IMP-D	Interplanetary Monitoring Platform-D	
IMP-E	Interplanetary Monitoring Platform-E	
IMP-I	Interplanetary Monitoring Platform-I	
INSAT IA	Indian National Satellite 1A	
INSAT 1B	Indian National Satellite 1B	
INSAT	Indian National Satellite	
IRIS	Incorporated Research Institutions for Seismology Network	
IRS-1A	Indian Remote Sensing Satellite-1A	
IRS-1B	Indian Remote Sensing Satellite-1B	
ISIS 1	International Satellite for Ionospheric Studies 1	
ISIS 2	International Satellite for Ionospheric Studies 2	
JERS-I	Japanese Earth Resources Satellite-1	
LAGEOS 2	Laser Geodetic Satellite 2	
LAGEOS	Laser Geodetic Satellite	

Valids	Description
LANDSAT	
LANDSAT-1	
LANDSAT-2	
LANDSAT-3	
LANDSAT-4	
LANDSAT-5	
LPATS	Lightning Positioning and Tracking System Network
MAGSAT	
MAPS	
MERLIN	Aircraft Centre Aviation Meterologique
MESONET	Mesoscale Meteorological Network
METEOR-2	
METEOR-3	
METEOSAT	
METEOSAT-1	
METEOSAT-2	
METEOSAT-3	
METEOSAT-4	Meteosat Operational Programme 1 (MOP-1)
METEOSAT-5	Meteosat Operational Programme 2 (MOP-2)
METEOSAT-6	Meteosat Operational Programme 3 (MOP-3)
MICROLAB-1	OSC Microlab-1 Satellite
MIDAS 2	Missile Defense Alarm System 2
MIO	Mobile Ionospheric Observatory
MIR-PRIRODA	PRIRODA Module of MIR Space Station
MODELS	
MOORINGS	
MOS-1	Japanese Marine Observation Satellite 1
MOS-1B	Japanese Marine Observation Satellite-1B
NAVSTAR	NAVSTAR Global Positioning System
NEUTRON MONITOR STATIONS	
NIMBUS	
NIMBUS-1	
NIMBUS-2	
NIMBUS-3	
NIMBUS-4	
NIMBUS-5	
NIMBUS-6	
NIMBUS-7	
NOAA POES	NOAA Polar Orbiting Environmental Satellites
NOAA-1	National Oceanic & Atmospheric Administration-1
NOAA-10	National Oceanic & Atmospheric Administration-10
NOAA-11	National Oceanic & Atmospheric Administration-11

Valids	Description	
NOAA-12	National Oceanic & Atmospheric Administration-12	
NOAA-13	National Oceanic & Atmospheric Administration-13	
NOAA-14	National Oceanic & Atmospheric Administration-14	
NOAA-2	National Oceanic & Atmospheric Administration-2	
NOAA-3	National Oceanic & Atmospheric Administration-3	
NOAA-4	National Oceanic & Atmospheric Administration-4	
NOAA-5	National Oceanic & Atmospheric Administration-5	
NOAA-6	National Oceanic & Atmospheric Administration-6	
NOAA-7	National Oceanic & Atmospheric Administration-7	
NOAA-8	National Oceanic & Atmospheric Administration-8	
NOAA-9	National Oceanic & Atmospheric Administration-9	
NSRN	NOAA Solar Radiation Network	
NWS	National Weather Service	
OBSERVATORIES		
OCEAN PLATFORMS		
OCEAN WEATHER STATIONS		
0G0 I	Orbiting Geophysical Observatory 1	
OGO 2	Orbiting Geophysical Observatory 2	
OGO 3	Orbiting Geophysical Observatory 3	
OGO 4	Orbiting Geophysical Observatory 4	
OGO 5	Orbiting Geophysical Observatory 5	
OGO 6	Orbiting Geophysical Observatory 6	
ORBVIEW-2	Orbital Sciences Corporation OrbView-2 Satellite	
OSO 1	Orbiting Solar Observatory 1	
OSO 2	Orbiting Solar Observatory 2	
OSO 3	Orbiting Solar Observatory 3	
OSO 4	Orbiting Solar Observatory 4	
OSO 5	Orbiting Solar Observatory 5	
OSO 6	Orbiting Solar Observatory 6	
OSO 7	Orbiting Solar Observatory 7	
OSO 8	Orbiting Solar Observatory 8	
OSTA-1	Office of Space & Terrestrial Applications-1	
OV-099	Challenger Space Shuttle	
OV-102	Columbia Space Shuttle	
OV-103	Discovery Space Shuttle	
OV-104	Atlantis Space Shuttle	
OV-105	Endeavour Space Shuttle	
PAGEOS 1	Passive Geodetic Earth Orbiting Satellite 1	
PAM-II	Portable Automated Mesonet II	
PAMS	Portable Automated Mesonet Stations	
PASSCAL	Program for Array Seismic Studies of the Continental Lithosphere	
PIBAL	Pilot Balloons	

Valids	Description
PROTEUS	Profile Telemetry of Upper Ocean Currents
RADARSAT-1	
RAE-A	Radio Astronomy Explorer-A
RAE-B	Radio Astronomy Explorer-B (Explorer 49)
RESURS-01	
ROCKETS	
SAGE	Stratospheric Aerosol and Gas Experiment
SATELLITES	
SEASAT	Ocean Dynamics Satellite
SEISMOLOGICAL STATIONS	
SHIPS	
SID	Sudden Ionospheric Disturbance Stations
SKYLAB	
SME	Solar Mesospheric Explorer
SMM	Solar Maximum Mission
SMS	Synchronous Meteorological Satellites
SMS-1	Synchronous Meteorological Satellite 1
SMS-2	Synchronous Meteorological Satellite 2
SOLAR RADIATION STATIONS	
SOLMET	Solar and Meteorological Stations
SOLRAD I	Solar Radiation 1
SOLRAD 10	Solar Radiation 10
SOLRAD 7A	Solar Radiation 7A
SOLRAD 7B	Solar Radiation 7B
SOLRAD 8	Solar Radiation 8
SOLRAD 9	Solar Radiation 9
SOON	Solar Observing Optical Network
SOUNDING ROCKETS	
SPACE SHUTTLES	
SPACELAB 1	
SPACELAB 3	
SPAS II	Shuttle Pallet Satellite II
SPOT 1	Systeme Probatoire Pour l'Observation de la Terre-1
SPOT 2	Systeme Probatoire Pour l'Observation de la Terre-2
SPOT 3	Systeme Probatoire Pour l'Observation de la Terre-3
SRL-1	Space Radar Laboratory-1
SRL-2	Space Radar Laboratory-2
STARLETTE	
STELLA	
STS-11	Space Transport System STS-11
STS-2	Space Transport System STS-2
STS-34	Space Transport System STS-34

Valids	Description	
STS-39	Space Transport System STS-39	
STS-41	Space Transport System STS-41	
STS-41G	Space Transport System STS-41G	
STS-43	Space Transport System STS-43	
STS-45	Space Transport System STS-45 Space Transport System STS-45	
STS-51B	Space Transport System STS-51B	
STS-51F	Space Tansport System STS-51F	
STS-55	Space Transport System STS-55	
STS-56	Space Transport System STS-56	
STS-59	Space Transport System STS-59	
STS-62	Space Transport System STS-62	
STS-66	Space Transport System STS-66	
STS-68	Space Transport System STS-68	
STS-72	Space Transport System STS-72	
STS-7	Space Transport System STS-7	
STS-9	Space Transport System STS-9	
SV	Snow Vehicle	
TIMAX	X-Ray Imaging Telescope	
TIROS 7	Television Infrared Operational	
TIROS	Television Infrared Observation Satellite	
TIROS-N	Television Infrared Observation Satellite-N	
TOPEX/POSEIDON	Ocean Topography Experiment	
TRMM	Tropical Rainfall Measuring Mission	
UARS	Upper Atmosphere Research Satellite	
VANGUARD		
VENERA-13		
VENERA-14		
WEATHER STATIONS		
WTSS	Water Temperature and Salinity System	
<i>YOHKOH</i>		

3.22 PassType

Description: Type of a satellite pass, i.e. ascending' descending'

Sources: CIP defined

Valids	
Ascending	
Descending	
None	

3.23 PeriodCycleUnit

Description: The unit specification of the cycle of the period, e.g. year, millisecond.

Sources: ECS

Default Valid:

Valids
Decade
Year
Month
Week
Day
Hour
Minute
Second
Millisecond
Microsecond

3.24 PeriodDurationUnit

Description: The unit specification of the duration of the period, e.g. year, millisecond.

Sources: ECS

Default Valid:

Valids
Decade
Year
Month
Week
Day
Hour
Minute
Second
Millisecond
Microsecond

3.25 ProcessingCentre

Description: Contains the short name of the data centre that has generated the data.

Sources: [ECS]

Default Valid:

Valids	Description
GSFC	Goddard Space Flight Center
LaRC	Langley Research Center
ORNL	Oak Ridge National Laboratory
EDC	EROS Data Center
NSIDC	National Snow and Ice Data Center
JPL	Jet Propulsion Laboratory
CIESIN	Consortium for International Earth Science Information Network
EDOS	EOS Data and Operations System
MISR SCF	MISR Science Computing Facility
SAGE III SCF	SAGE III Science Computing Facility
ERSDAC	Earth Remote Sensing Data Analysis Center in Japan

3.26 ProcessingLevelId

Description: This parameter identifies the processing level of the data in the archive

Sources: [ECS]

Default Valid: Not Available

Valids	Description
0	Raw instrument data at original resolution, time ordered, with duplicate packets removed.
1A	Level 0 data, which may have been reformatted or transformed reversibly, located to a coordinate system and packaged with needed ancillary and engineering data.
1B	Radiometrically corrected and calibrated data in physical units at full instrument resolution as acquired.
2	Retrieved environment variables (e.g. ocean wave height, soil moisture, ice concentration) at the same location and similar resolution the Level 1 source data.
3	Data or retrieved environmental variables that have been spatially and/or temporarily resampled (i.e. derived from Level 1 or Level 2 data products). Such resampling may include averaging and compositing.
4	Model output and/or variables derived from lower level data which are not directly measured by the instruments. For example, new variables based upon a time series of Level 2 or Level 3 data.
Not Available	Information not available

3.27 ProcessingType

Description: Type of processing, e.g. colour image product, GTC with DTM information.'

Sources: CIP defined

Valids	
Colour Image Product	

Sources: [FGDC Digital Transfer Information - Format Name]

Valids	Description
ARCE	ARC/INFO Export format
ARCG	ARC/INFO Generate format
ASCII	ASCII file, formatted for text attributes, declared format
BIL	Imagery, band interleaved by line
BIP	Imagery, band interleaved by pixel
BSQ	Imagery, band interleaved sequential
CDF	Common Data Format
CFF	Cartographic Feature File (U.S. Forest Service)
COORD	User-created coordinate file, declared format
DEM	Digital Elevation Model format (U.S. Geological Survey)
DFAD	Digital Feature Analysis Data (Defense Mapping Agency)
DGN	Microstation format (Intergraph Corporation)
DIGEST	Digital Geographic Information Exchange Standard
DLG	Digital Line Graph (U.S. Geological Survey)
DTED	Digital Terrain Elevation Data (MIL-D-89020)
DWG	AutoCAD Drawing format
DX90	Data Exchange '90
DXF	AutoCAD Drawing Exchange Format
ERDAS	ERDAS image files (ERDAS Corporation)
GRASS	Geographic Resources Analysis Support System
HDF	Hierarchical Data Format
IGDS	Interactive Graphic Design System format (Intergraph Corporation)
IGES	Initial Graphics Exchange Standard

Valids	Description
MOSS	Multiple Overlay Statistical System export file
netCDF	network Common Data Format
NITF	National Imagery Transfer Format
RPF	Raster Product Format (Defense Mapping Agency)
RVC	Raster Vector Converted format (MicroImages)
RVF	Raster Vector Format (MicroImages)
SDTS	Spatial Data Transfer Standard (Federal Information Processing Standard 173)
SIF	Standard Interchange Format (DOD Project 2851)
SLF	Standard Linear Format (Defense Mapping Agency)
TGRLN	Topologically Integrated Geographic Encoding and Referencing (TIGER) Line format (Bureau of the Census)
TIFF	Tagged Image File Format
VPF	Vector Product Format (Defense Mapping Agency)

3.30 ProductMedium

Description: Medium on which the product is available, e.g. CD-ROM, Exabyte.

Sources: [FGDC Offline Media] and additions

Valids (FGDC)
3-1/2 inch floppy disk
5-1/4 inch floppy disk
9-track tape
4 mm cartridge tape
8 mm cartridge tape
1/4-inch cartridge tape

Valids (Additional)	
on-line	
5 MO (Magnetic Optical Disk)	
3.5 MO (Magnetic Optical Disk)	
photo	
D1 tape	

3.31 ProjectName

Description: This element should be supplied when there is a relationship of the collection to a campaign or project (e.g. WOCE, FIRE, PROMIS, etc.). Campaigns or projects usually encompass data from a number of diverse data sources. The element includes both short and long names.

Sources: [GCMD *Project/Campaign*]

Valids	Description
A&RW/SJC	Aerosols and Rain Water at Sao Jose dos Campos,SP, Brazil
AAOE	Airborne Antarctic Ozone Experiment
AASE	Airborne Arctic Stratospheric Expedition
AASE-II	Airborne Arctic Stratospheric Expedition-II
ABRACOS	Anglo-Brazilian Amazonian Climate Observation Study
ACDCA	Antarctic Inspections Cruise
ACID-MODES	Acid Model Operational Diagnostic Evaluation Study
ACR	Antarctic Climate Research
AEOLUS 1980	Atmospheric Experiment on Orographic Flows, Lee Waves, Upslope Snowstorms
AFEAS	Alternative Fluorocarbons Environmental Acceptability Study
AGASP	Arctic Gas and Aerosol Sampling Program
AIDJEX	Artic Ice Dynamics Joint Experiment
AIRMON	Air Monitoring Network - Dry Deposition
AIRSTREAM	7
AJAX	
ALE/GAGE	Atmospheric Lifetime Experiment/Global Atmospheric Gases Experiment
ALIVE	Army Lidar Verification Experiment
ALPEX	Alpine Experiment
AMASSED	Amazon Shelf Sediment Study
AMEX/EMEX	Australian Monsoon Experiment
AMIP	Atmospheric Model Intercomparison Project
ANT-VI/3	Structure of the Continental Margin in the Weddell Sea and Adjacent Areas
ANT-VIII/5	Structure of the Continental Margin in the Weddell Sea and Adjacent Areas
ANT-X/2	Structure of the Continental Margin in the Weddell Sea and Adjacent Areas
ANT-XII/2	Structure of the Continental Margin in the Weddell Sea and Adjacent Areas
APEX	Arctic Polynya Experiment
APIOS	Acid Precipitation In Ontario Study
ARB	Aerosol Research Branch Light Detection and Ranging Project
ARCSS/LAII	Arctic System Science/Land-Atmosphere-Ice Interaction
ARCTIC'91	Structure of the Oceanic Lithosphere of the Arctic Ocean
ARK-V/3B	Structure of the East Greenland Continental Margin
ARK-VII/3B	Structure of the East Greenland Continental Margin
ARK-X/2	Structure of the East Greenland Continental Margin
ARM	Atmospheric Radiation Measurement Project
ARMCAS	Arctic Radiation Measurement in Column Atmosphere Surface

Valids	Description
ARSLOE	Atlantic Remote Sensing Land/Ocean Experiment
ARTEMIS	UN/FAO Africa Real Time Environmental Monitoring Using Imaging Satellites
ASHCAN	
ASTEX	Atlantic Stratocumulus Transition Experiment
ATLANTA EXPERIMENT	Atlanta International Airport Experiment
ATLAS	Atmospheric Laboratory for Applications and Science
ATMOSPHERIC DRAG EXPERIMENT	
AVE	Atmospheric Variability Experiment
AVHRR PATHFINDER	AVHRR Land Dataset Program
AVHRR 1-KM PATHFINDER	
AWDN	Automated Weather Data Network
BAPMON	Background Air Pollution Monitoring Network
BASICS	Bering Air-Sea-Ice Study
BBS	Bird Breeding Survey
BCI	Bat Conservation International
BD CARTO	French Cartographic Database
BIO_BURN	Biomass Burning Project
BIOMASS	Biological Investigations of Marine Antarctic Systems and Stocks
BIOQUIMICA_APLICADA	Biochemical and Nutritional Studies on Antarctic
BLAST	Bromine Latitudinal Air/Sea Transect
BMDO	Ballistic Missile Defense Organization
BOFS	Biogeochemical Ocean Flux Study
BOMEX	Barbados Oceanographic and Meteorological Experiment
BOREAS	The Boreal Ecosystem-Atmosphere Study
BRFEX	Boardman Regional Flux Experiment (DOE ARM)
CALCOFI	California Cooperative Oceanic Fisheries Investigations
CAMEX	Convection and Moisture Experiment
CAMP	California Monitoring Program
CAPE	Convection and Precipitation/Electrification Experiment
CAPMON	Canadian Air and Precipitation Monitoring Network
CBC	Christmas Bird Counts
CCAP	Coastal Change Analysis Project
CCCCS	Central California Coastal Circulation Study
CDRK	Carbon Dioxide Research of Kanagawa
CEAREX	Coordinated Eastern Arctic Experiment
CEPEX	Central Equatorial Pacific Experiment
CERES	Clouds and Earth Radiant Energy System
CGC	NOAA Climate and Global Change Program
CHARTERBOAT SURVEY	
C12	Cirrus Experiment
CIBAC	
CILAT	

Valids	Description
CLARET	Cloud Lidar And Radar Exploratory Study
CLIMAP	Climate - Long Range Investigation, Mapping and Prediction
CLIMPROB	Guiding/Assisting Agroclimatic Decision Making Program
CLIVAR	Climate Variability
CMDL	Climate Monitoring and Diagnostics Laboratory (NOAA)
CMIP	Coupled Model Intercomparison Project
COADS	Comprehensive Ocean Atmosphere Data Set
CODE	Coastal Ocean Dynamics Experiment
СОНМЕХ	Cooperative Huntsville Monsoon Experiment
COLD	Coupled Ocean-Ice Linkages & Dynamics
COMET	Cooperative Program for Operational Meteorology, Education, and Training
COMEX	
CONFLUENCIA_WEDDELL-SCOTIA	
COP	Coastal Ocean Program
CORE	Coastal Ocean Response Experiment
COROAS	Oceanic Circulation in the Western Region of the South Atlantic
COSPAR	Committee on Space Research
CREDDP	Columbia River Estuary Data Development Program
CRREL	U.S. Army Cold Regions Research and Engineering Laboratory
CUENCAS_SEDIMENTARIAS	
CURTAIN I-VIII	
DINOCEANTAR	Dinamica_Oceanica_Antartica
DMSP	Defense Meteorological Satellite Program
DNAG	Decade of North American Geology
DOERAP	Department of Energy Resource Assessment Program
DOMES	Deep Ocean Mining Environmental Study
DSDP	Deep Sea Drilling Program
DULLES EXPERIMENT	Dulles International Airport Experiment
DUNDEE	Down-Under Doppler and Electricity Experiment
EASOE	European Arctic and Stratospheric Ozone Experiment
EASTROPAC	Eastern Tropical Pacific
EBC	Eastern Boundary Current
ECLIPS	Experimental Cloud Lidar Pilot Study
ECOLOGIA_DEL_PLANCTON	
EDIMS	UNH Environmental Data and Information Management System
EFX	Elkins Flux Experiment
EGMEX	Eastern Gulf of Mexico
EMEFS	Eulerian Model Evaluation Field Study
ENERGIAS_NO_CONVENCIONALES	Vulcanologia Monitoreo
EOLE	
EOS	Earth Observing System
EOSAP	Earth Observing System Amazon Project

Valids	Description
EOSDIS	Earth Observing System Data Information System
EPA CTMD PROGRAM	EPA Complex Terrain Model Development Program
EPA GCRP	EPA Global Change Research Program
EPOCS	Equatorial Pacific Ocean Climate Studies
ERAQS	Eastern Regional Air Quality Study
ERBE	Earth Radiation Budget Experiment
ERICA	Experiment Rapidly Intensifying Cyclones Atlantic
ERM	Exact Repeat Mission
ESTN	Estuarine Nitrogen
EUBEX	Eurasian Basin Experiment
FADMP	Florida Acid Deposition Monitoring Program
FADS	Florida Acid Deposition Study
F DRAKE	First Dynamic Response and Kinematic Experiment in the Drake Passage
FIFE	First ISLSCP Field Experiment
FIRE	First ISCCP Regional Experiment
FIRE II	First ISCCP Regional Experiment - Cirrus II
FIRE/MTV	Fire in Global Resources and Environmental Monitoring
FLARES 22	Flares Research at the Maximum of Solar Cycle 22
FLEX	
FLORENCE	FLux Oceaniques Restitues par bilan d'ENergie a la surfaCE
FOCAL	Programme Francais Ocean et Climat dans l'Atlantique Equatorial
FOCI	Fisheries Oceanography Cooperative Investigation
FORAST	Forest Response to Anthropogenic Stress
FRAQS	Front Range Air Quality Study
FRENTES_OCEANICOS	
FRLAB	Front Range Lidar and Ballon Experiment 3
GALE	Genesis of Atlantic Lows Experiment
GALVESTON BAY BAIT SURVEY	
GAMETAG	Global Atmospheric Measurements Experiment on Tropospheric Aerosols and Gases
GANOVEX VI	Aeromagnetic Investigations in North Victoria Land
GARP/FGGE	Global Atmospheric Research Program/First Garp Global Experiment (GARP/FGGE)
GATE	GARP Atlantic Tropical Experiment
GAW	Global Atmosphere Watch
GCCHP	Global Change Climate History Project
GCIP	GEWEX Continental-Scale International Project
GCOS	Global Climate Observing System
GCPS	Global Climate Perspectives System
GEIA	Global Emissions Inventory Activity
GEOSCOPE	Interactive Global Change Encyclopedia
GEOSECS	Geochemical Ocean Section Study
GEWEX	Global Energy and Water Cycle Experiment
GGBRB	Geochemistry and Geophysics of the Buquira River Basin

Valids	Description
GGD	Global Geocryological Database
GHCN	Global Historical Climatology Network
GIG91	GPS IERS and Geodynamics Experiment
GLOBE	Global Learning and Observations to Benefit the Environment
GLOBEC	Global Ocean Ecosystems Dynamics
GLOBMET	Global Meteor Observation System
GLOSS	Global Sea Level Observing System
GMCC	Geophysical Monitoring for Climate Change (NOAA)
GNIS	Geographic Names Information System
GOALS	Global Ocean Atmosphere Land System
GOMPOP	Gulf of Mexico Physical Oceanography Program
GONG	Global Oscillation Network Group
GOOS	Global Ocean Observing System
GPCC	Global Precipitation Climatology Center Project
GPCP	Global Precipitation Climatology Project
GPS/MET	Global Positioning System Meteorology Experiment
GRAVSAT	
GRSFE	Geologic Remote Sensing Field Experiment
GTOPO30	Global 30-Arc-Second Elevation Data Set
GTE	Global Tropospheric Experiment
GTMS	Global Thermosphere Mapping Study
GUSREX	Gulf Stream Recirculation Experiment
HASP	High Altitude Sampling Program
HCN	Historical Climatology Network
HIELOANTAR	Antarctic Glaciology
НОТ	Hawaiian Ocean Time Series Project
HSRP	High Speed Research Program
IBSS	Infrared Background Signature Survey
ICITA	International Cooperative Investigations of the Tropical Atlantic
ICRCCM	Intercomparison of Radiation Codes in Climate Models
IDOE	International Decade of Ocean Exploration
IDS-LSC	Interdisciplinary Sciences-Land Surface Climatology
IERS	International Earth Rotation Service
IFS	Integrated Forest Study
IGAC	International Global Atmospheric Chemistry
IGBP	International Geosphere Biosphere Program
IGCP	International Geological Correlation Program
IGOSS	Integrated Global Ocean Services System
IGS	International GPS Geodynamics Service
ILS	International Latitude Service
IMMUNOLOGY	Study of Human Response to Antarctic Environment
IMS	International Magnetosphere Study

Valids	Description
INDIGO	Indien Gaz Ocean
INTERCAMBIO_CALORICO	Study of Food Intake, Calories and Heat Production in Humans in Antarctica
INTERKOSMOS	
IPA	International Permafrost Association
IPCC	Intergovernmental Panel on Climate Change
IPMS	International Polar Motion Service
IPOD	International Phase of Ocean Drilling
ISCCP	International Satellite Cloud Climatology Project
ISLSCP	International Satellite Land Surface Climatology Project
ISLSCP INITIATIVE-I	International Satellite Land Surface Climatology Project Initiative-I
ISMEX	
ISOS	International Southern Ocean Studies
IXTOC	
JAPACS	Japanese Pacific Climate Studies
JARE 18	Japanese Antarctic Research Expedition 18
JARE 20	Japanese Antarctic Research Expedition 20
JARE 21	Japanese Antarctic Research Expedition 21
JARE 22	Japanese Antarctic Research Expedition 22
JARE 23	Japanese Antarctic Research Expedition 23
JARE 24	Japanese Antarctic Research Expedition 24
JARE 25	Japanese Antarctic Research Expedition 25
JARE 26	Japanese Antarctic Research Expedition 26
JARE 27	Japanese Antarctic Research Expedition 27
JARE 28	Japanese Antarctic Research Expedition 28
JARE 31	Japanese Antarctic Research Expedition 31
JARE	Japanese Antarctic Research Expedition
JASIN78	Joint Air-Sea Interaction Project
JAWS	Joint Airport Weather Study
JC-JSOD	Japan-China Joint Study on Desertification
JGOFS	Joint Global Ocean Flux Study
JONSDAP76	Joint North Sea Data Acquisition Project
JONSWAP	Joint North Sea Wave Project
L-RERP	Puget Sound Long-Range Effects Program
LAKE MICHIGAN ECOL. MONITOR	
LARGE SCALE PROJECT	
LBA	Large Scale Biosphere-Atmosphere Experiment in Amazonia
LEADEX	Arctic Leads Experiment
LEADS ARI	Office of Naval Research Arctic Leads Accelerated Research Initiative
LIS	Lightning Imaging Sensor Project
LMOS	Lake Michigan Ozone Study
LOIS	Land Ocean Interaction Study
LOWS	Lake Ontario Winter Storms Experiment

Valids	Description
LTER	Long-Term Ecological Research
MAGNET	
MAP	Middle Atmosphere Program
MAP3S	Multistate Atmospheric Power Production Pollution Study
MAP/WINE	Middle Atmosphere Program/Winter in Northern Europe
MARINE_MAMMALS_PROGRAM	Marine Mammals Dynamic Population in South Orkney Is. & South Shetland Is.
MARIS	Multi Aquatic Resource Information System
MARMAP	Marine Resources, Monitoring, Assessment and Prediction
MARPOLMON	
MASAR	Mid Atlantic Slope Rise Experiment
MAST	Monterey Area Ship Tracks
MAX91	The U.S. Max '91 Program of Flare Research Campaigns
MECCA	Model Evaluation Consortium for Climate Change Assessment
MECHANISM ON ASIAN MONSOON	
MEDALPEX	Mediterranean Alpine Experiment
MEDIO_AMBIENTE	
MERIT	Monitoring Earth Rotation and Intercompare Techniques
MESA	Marine Ecosystems Analysis (Puget Sound) Project
MESOGAMM 86	
MINERAL RESOURCES	SISMOANTAR
MIZEX	Marginal Ice Zone Experiment
MIZEX-WEST	Marginal Ice Zone Experiment-West
MIZPAC	Marginal Sea Ice Zone Pacific
MOHAVE	Measurement of Haze and Visual Effects
MONEX	Monsoon Experiment
MONITOREO_DE_ECOSISTEMAS	Penguin Monitoring of Antarctic Peninsula, South Orkney Is., South Shetland Is.
MRS	Marine Remote Sensing
NADP	National Atmospheric Deposition Program
NANSEN	North Atlantic Norwegian Sea Exchange
NBIOME	Northern Biosphere Observation and Modelling Experiment
NCCCS	Northern California Coastal Circulation Study
NCSS	National Cooperative Soil Survey
NCTS	Northern California Transport Study
NDSC	Network for Detection of Stratospheric Change
NDTP	North Dakota Thunderstorm Project
NEI	National Estuarine Inventory
NEMP	Northeast Monitoring Program
NEXRAD	NEXt Generation Weather RADar
NICAL	
NIN	Northern Information Network
NOAA/NASA PATHFINDER	NOAA/NASA Pathfinder Program
NORPAX	North Pacific Shuttle Experiment

Valids	Description
NORSWAM	North Sea Wave Model
NS&T	National Status and Trends Program
NSTS	Nearshore Sediment Transport Study
NTN	National Trends Network
NVAP	NASA Water Vapor Project
NWI	National Wetlands Inventory
O'HARE EXPERIMENT	O'Hare Airport Experiment
OAXTC	Ocean/Atmosphere Exchange of Trace Compounds
OCEAN	Ocean Color European Archive Network
OCEANOGRAFIA_COSTERA	
OCRS	Ocean Color Remote Sensing
OCS	Outer Continental Shelf Program
OCSEAP	Ocean Continental Shelf Environmental Assessment Project
ODP/DSDP	Ocean Drilling Program / Deep Sea Drilling Project
OEN	Operational Evaluation Network
ONR OCEAN OPTICS	Office of Naval Research Ocean Optics
OOFASH	Oceanographic Observations of Fisheries at the Adjacent Seas of Hokkaido
OPUS	Observations of Persistent Upwelling Structures
OTEC	Ocean Thermal Energy Conversion
OTTER	Oregon Transect Ecosystem Research Project
PACS	Pan-American Climate Studies
PAGES	Past Global Changes Project
PALEOMAP	PALEOMAP Project
PARCA	Program in Arctic Regional Climate Assessment
PCMDI	Program for Climate Model Diagnoses and Intercomparison
PFSFC	Project on the Forecast of Sea and Fishing Conditions
PMV	Plume Model Validation and Development Study
PNRA	Programma Nazionale di Ricerche in Antartide
POLYMODE	
PRECP-V	Processing of Emissions by Clouds and Radiation V
PREOPERATIONAL SURVEY OF A DUMP	Preoperational Survey of a Dumping Site of Low-Level Radioactive Wastes
PRIRODA	PRIRODA International Scientific Remote Sensing Project
PRISM	Pleistocene, Research, Interpretation, and Synoptic Mapping Project
PRISM/OCS	Parameter-elevation Regressions on Independent Slopes
PROBE	Pilot Radiation Observation Experiment
PROBES	Processes and Resources of the Bering Sea Shelf
PTP	Pamir-Tienshan Project
PYS	Project of Yatsushiro Sea
RADAM	
RECURSOS_MINERALES	
RITS 89	Radiatively Important Trace Species 1989
ROME	

Valids	Description
ROSE	Rural Oxident in a Southern Environment
RSS	Reflection Seismic Survey
SAGA	Andes Project
SAGA II/III	Soviet/American Gas and Aerosol Expedition
SAGE I	Stratospheric Aerosol and Gas Experiment I
SAGE II	Stratospheric Aerosol and Gas Experiment II
SAHEL_NAFR	Sahelian and NW Africa 14-Day NDVI Composites
SAM-II	Stratospheric Aerosol Measurement II
SAR	Species At Risk
SBC/SMB	Santa Barbara Channel/Santa Marine Basin Study
SBCS	Santa Barbara Channel Study
SCAR_A	Sulfates, Clouds and Radiation America
SCAR-B	Smoke, Clouds, and Radiation - Brazil
SCENES	Subregional Cooperative Electric Utility, NPS and EPA Study
SCTS	Southern California Transport Study
SEATAR	Studies of East Asia Tectonics and Resources
SEDBAS	Sedimentary Basins
SESAME	Second European Stratospheric Arctic and Mid-Latitute Experiment
SEQUAL	Seasonal Response of the Equatorial Atlantic
SICPP	Seasonal-to-Interannual Climate Prediction Program
SIZEX	Seasonal Ice Zone Experiment
SJVAQS	San Joaquin Valley Air Quality Study
SMILE	Shelf Mixed Layer Experiment
SNF	Superior National Forest
SO-FIA	Southern Forest Experiment Station/Forest Inventory and Analysis
SOS	Southern Oxidants Study
SOUTH.CAL.OCS BASELINE	
SPARCE	Schools of the Pacific Rainfall Climate Experiment
SPECMAP	
SPECTRE	Spectral Radiance Experiment
SPREX	Spring Removal Experiment
SRB	Surface Radiation Budget
SSE	Surface Solar Energy
SSEOP	Space Shuttle Earth Photographs Observation Project
STACS	
STARDUST	
STEP	Stratosphere-Troposphere Exchange Project
STERNA92	
STLHBA	Submarine Topography of Lutzow-Holm Bay, Antarctica
STORM-FEST	STORM-Fronts Experiment Systems Test
STRAT	Stratospheric TRacers of Atmospheric Transport Mission
STREX	Storm Transfer and Response Experiment

Valids	Description
SUCCESS	Subsonic Aircraft Contrail and Cloud Effects Special Study
SURE	Sulfate Regional Experiment
SWAMP	Southwest Area Monsoon Project
TARFOX	Tropospheric Aerosol Radiative Forcing Observational Experiment
TBS	
TCM-90	Tropical Cyclone Motion
TIWE	Tropical Instability Wave Experiment
TOGA	Tropical Ocean Global Atmosphere
TOGA COARE	TOGA Coupled Ocean Atmosphere Response Experiment
TOVS PATHFINDER	TOVS Path A
TRANPAT	Antarctic Peninsula Magnetotelluric Transects
TRANSPAC	
TTO	Transient Tracers Oceans Experiment
TWERLE	
UAPSP	Utility Acid Precipitation Study Program
UARS	Upper Atmosphere Research Satellite
UK CLIMATE RESEARCH PROGRAMME	
UNEP/GRID	UNEP/Global Resources Information Database
USAC	Airbone Magnetics and Gravity in Weddell Sea, Antarctica
USARP	U.S. Antarctic Research Program
USDA/UVB	USDA UV-B Radiation Monitoring Program
USGS/EDC/SAST	USGS EDC Scientific Assessment and Strategy Team
VIVALDI91	
VOCAR	Variability of Coastal Atmospheric Refraction
WAMEX	West African Monsoon Experiment
WATOX	Western Atlantic Ocean Experiment
WCRP	World Climate Research Program
WDC-C2/IONOSPHERE	World Data Center-C2 for Ionosphere
WEPOLEX	Weddell Polynya Expedition
WETNET	
WINCE	Winter Cloud Experiment
WISC	Wisconsin Acid Deposition Monitoring Network
WISP	Winter Icing and Storms Project
WOCE	World Ocean Circulation Experiment
WQRSBMP	Water Quality Research of Shizugawa Bay of Miyagi Prefecture
WW2010	The Weather World 2010
WWCA	World Water and Climate Atlas

3.32 Role

Description: The role of a person for the collection.

Sources: CIP defined

Default Valid:

Valids		
Administrator		
Technical		
Investigator		

3.33 Scale

Description: The scaling used for the data (e.g. map).

Sources: [CEO]

Default Valid:

Valids
> 1:500
> 1:500-1:5 000
> 1:5 000-1:10 000
> 1:10 000-1:25 000
> 1:25 000-1:50 000
> 1:50 000-1:100 000
> 1:100 000-1:250 000
> 1:250 000-1:500 000
> 1:500 000-1:1 000 000
> < 1:1 000 000

3.34 ScienceReviewStatus

Description: Type of review which occurred on the Science Review Date.

Sources: TBD

Default Valid:

3.35 SensorIdentifier/SensorName

Description (SensorIdentifier): A mnemonic or otherwise abbreviated version (acronym) for

the sensor.

Description (SensorName): A text string (not acronym) defining the sensor name Sources:

TBD

3.36 SensorMode

Description: Specific mode of the sensor.

Sources: TBD

Default Valid:

3.37 SpatialKeyword

Description: The spatial keywords provide the capability of selecting place names to be used as search parameters, usually as an alternative to specifying latitudes and longitudes (which may not apply in some disciplines). For example, Tropical Region, Atlantic Ocean.

Sources: [GCMD Location Keywords]

Valids
Global
Global Land
Global Ocean
Polar
Antarctica
Arctic
Mid-Latitude
Equatorial
Southern Hemisphere
Western Hemisphere
Eastern Hemisphere
Northern Hemisphere
Africa
Southern Africa
West Africa
Central Africa
East Africa
Sahel
North Africa
Asia
Southern Asia
Southeast Asia
Western Asia
Central Asia
Eastern Asia
Europe

Valids
Southern Europe
Western Europe
Central Europe
Eastern Europe
Northern Europe
Eurasia
Middle East
Oceania
Australia
South America
Central America
Caribbean
North America
Afghanistan
Albania
Algeria
American Samoa
Andorra
Angola
Anguilla
Antigua and Barbuda
Argentina
Armenia
Aruba
Ascension Island
Azores
Australia
Austria
Azerbaijan
Bahamas
Bahrain
Bangladesh
Barbados
Belarus
Belgium
Belize
Benin
Bermuda
Bhutan
Bolivia
Bonaire

Valids
Bosnia and Herzegovina
Botswana
Bouvet Island
Brazil
Brunei Darussalam
Bulgaria
Burkina Faso
Burundi
Cameroon
Canada
Canary Islands
Cape Verde
Cayman Islands
Central African Republic
Ceuta
Chad
Channel Islands
Chile
China
Christmas Island
Cocos Islands
Colombia
Comoros
Congo
Cook Islands
Corsica
Costa Rica
Cote d'Ivoire
Croatia
Cuba
Curacao
Cyprus
Czech Republic
Denmark
Djibouti
Dominica
Dominican Republic
Ecuador
Egypt
El Salvador
Equatorial Guinea
Eritrea
—······

Valids
Estonia
Ethiopia
Falkland Islands
Faeroe Islands
Fiji
Finland
France
French Guiana
French Polynesia
Gabon
Gambia
Georgia
Germany
Ghana
Gibraltar
Gough Island
Greece
Greenland
Grenada
Guadeloupe
Guam
Guatemala
Guinea
Guinea-Bissau
Guyana
Haiti
Hawaiian Islands
Honduras
Hungary
Iceland
India
Indonesia
Iran
Iraq
Ireland
Israel
Italy
Jamaica
Japan
Jordan
Kampuchea
Kazakhstan
К ИДИКПЅІЙП

** ***
Valids
Kenya
Kiribati
Korea, DPR
Korea, Republic
Kuwait
Kyrgyzstan
Laos
Latvia
Lebanon
Lesotho
Liberia
Libya
Liechtenstein
Lithuania
Luxembourg
Macao
Macedonia, FYR
Macquarie Island
Madagascar
Madeira
Malawi
Malaysia
Maldives
Mali
Malta
Marshall Islands
Martinique
Mauritania
Mauritius
Mexico
Micronesia
Moldova
Monaco
Mongolia
Montserrat
Morocco
Mozambique
Myanmar
Namibia
Nauru
Nepal Netherlands

v
Valids
New Caledonia
New Zealand
Nicaragua
Niger
Nigeria
Niue
Norfolk Island
Norway
Northern Mariana Islands
Okinawa
Oman
Pakistan
Palau
Panama
Papua New Guinea
Paraguay
Peru
Philippines
Pitcairn Island
Poland
Portugal
Puerto Rico
Qatar
Reunion
Romania
Russian Federation
Rwanda
Saba
San Marino
Sao Tome and Principe
Sardinia
Saudi Arabia
Senegal
Seychelles
Sicily
Sierra Leone
Singapore
Slovakia
Slovenia
Solomon Islands
Sonalia
South Africa

v
Valids
South Georgia Island
South Orkney Islands
South Sandwich Islands
South Shetland Islands
Spain
Sri Lanka
St Barthelemy
St Eustatius
St Helena
St Kitts and Nevis
St Lucia
St Maarten
St Martin
St Pierre and Miquelon
St Vincent and the Grenadines
Sudan
Suriname
Svalbard
Swaziland
Sweden
Switzerland
Syria
Taiwan
Tajikistan
Tanzania
Thailand
Togo
Tokelau
Tonga
Trinidad and Tobago
Tristan da Cunha
Tunisia
Turkey
Turkmenistan
Turks and Caicos Islands
Tuvalu
Uganda
Ukraine
United Arab Emirates
United Kingdom
United States of America
Uruguay

Valids
Uzbekistan
Vanuatu
Vatican City
Venezuela
Viet Nam
Virgin Islands
Wake Island
Wallis and Futuna Islands
Western Samoa
Yemen
Yugoslavia
Zaire
Zambia
Zanzibar
Zimbabwe
Atlantic Ocean
North Atlantic Ocean
South Atlantic Ocean
Arctic Ocean
Indian Ocean
Pacific Ocean
North Pacific Ocean
South Pacific Ocean
Southern Ocean
Southern Ocean
Arabian Sea
Baltic Sea
Bering Sea
•
Black Sea
Caribbean Sea
East China Sea
Gulf of Alaska
Gulf of Mexico
Hudson Bay
Mediterranean Sea
North Sea
Persian Gulf
Red Sea
Sea of Okhotsk
Sea of Japan
South China Sea

Valids
Yellow Sea
Aral Sea
Caspian Sea
Great Bear Lake
Great Slave Lake
Great Lakes
Lake Baykal
Lake Chad
Lake Malawi
Lake Tanganyika
Lake Victoria
Core
Mantle
Crust
Sea Floor
Sea Surface
Land Surface
Boundary Layer
Troposphere
Stratosphere
Mesosphere
Thermosphere
Ionosphere
Chromosphere
Corona
High Latitude Magnetosphere
Inner Magnetosphere
Magnetosphere (other)
Magnetotail
Dhotosphore

${\bf 3.38\ Spatial Keywords The saurus}$

Description:	Reference to	the thesaurus use	d for the	snatial	keywords
Description.	ixcititutitut to	uic uicsaurus usc	u ioi uic	Spanai	KC y W OI US.

Sources: CIP defined

Berault Valid.
Valids
GCMD Location Keywords

3.39 SpatialResolution

Description: The minimum distance between two adjacent geographic points.

Sources: [CEO]

Default Valid:

Valids
< 3 meters
3-10 meters
10-30 meters
30-100 meters
100-1 000 meters
> 1 000 meters

3.40 StorageMedium

Description: Type of medium on which the data is currently stored.

Sources: [FGDC Source Media] ECS

Valids
paper
stable-base material
microfiche
microfilm
audiocassette
chart
filmstrip
transparency
videocassette
videodisc
videotape
physical model
computer program
disc
cartridge tape
magnetic tape
online
CD-ROM

Valids
electronic bulletin board
electronic mail system
35mm Slides
HardcopyPlats
Magnetic Discs

3.41 TemporalKeyword

Description: The name of a time period covered by a collection. For example, Summer'.

Sources: [ECS]

Default Valid:

Valids
Cambrian
Carboniferous
Cenozoic
Cretaceous
Devonian
Eocene
Holocene
Jurassic
Mesozoic
Miocene
Oligocene
Ordovician
Paleocene
Paleozoic
Permian
Pleistocene
Pliocene
Precambrian
Quaternary
Silurian
Tertiary
Triassic

3.42 TemporalKeywordsThesaurus

Description: Reference to the thesaurus used for the temporal keywords

Page 97of 117

Sources: CIP defined

Default Valid:

Valids

ECS Temporal Keywords

3.43 TemporalResolution

Description: The temporal frequency of data sampled.

Sources: TBD

Default Valid:

3.44 ThemeKeyword

Description: Controlled keyword list to define the theme (e.g. discipline, topic) covered by

a collection

Sources: [GCMD Parameter Keywords]

Default Valid:

The following four-level keyword list selected is inserted in the ThemeKeyword. The different levels are separated by "."

CATEGORY	TOPIC	TERM	VARIABLE
EARTH SCIENC	E <i>ATMOSPHERE</i>	Aerosols	Aerosol Backscatter
			Aerosol Extinction
			Aerosol Particle Properties
			Aerosol Radiance
			Carbonaceous Aerosols
			Cloud Condensation Nuclei
			Dust/Ash
			Nitrate Particles
			Organic Particles
			Particulate Matter
			Sulfate Particles
		Air Quality	Carbon Monoxide
			Emissions
			Lead
			Nitrogen Oxides
			Particulates
			Smog
			Sulfur Oxides
			Tropospheric Ozone

	Turbidity
	Visibility
	Volatile Organic Compounds
Altitude	Barometric Altitude
	Geopotential Height
	Ground Height
	Mixing Height
	Station Height
	Stratopause
	Tropopause
Atmospheric Chemistry	Carbon Dioxide
	Carbon Monoxide
	Carbonyl Sulfide
	Chlorine Monoxide
	Chlorofluorocarbons
	Dimethyl Sulfide
	Halocarbons
	Hydrochlorofluorocarbons
	Hydrofluorocarbons
	Hydroxyl
	Methane
	Nitric Acid
	Nitrogen
	Nitrogen Dioxide
	Nitrogen Oxides
	Nitrous Oxide
	Non-Methane Hydrocarbons
	Oxygen
	Ozone
	Photolysis Rates
	Sulfur Dioxide
	Sulfur Oxides
	Trace Elements
	Trace Gases
	Volatile Organic Compounds
Atmospheric Phenomena	Cyclones
	Drought
	Freeze
	Frost
	Hurricanes
	Lightning
	Monsoons
	Storms
	Tornados
	Typhoons

Atmospheric Pressure	Antiqualanas/Cyalanas
Autiospheric Pressure	Anticyclones/Cyclones
	Atmospheric Pressure
	Differential Pressure
	Gravity Wave
	Hydrostatic Pressure
	Oscillations
	Planetary Boundary Layer
	Pressure Anomalies
	Pressure Tendency
	Pressure Thickness
	Sea Level Pressure
	Static Pressure
	Surface Pressure
Atmospheric Temperature	Air Temperature
	Atmospheric Stability
	Boundary Layer Temperature
	Degree Days
	Deiced Temperature
	Inversion Height
	Maximum/Minimum Temperature
	Potential Temperature
	Skin Temperature
	Static Temperature
	Surface Air Temperature
	Temperature Anomalies
	Virtual Temperature
Atmospheric Water Vapor	Condensation
	Dew Point
	Evaporation
	Evapotranspiration
	Precipitable Water
	Sublimation
	Water Vapor
Atmospheric Winds	Convergence/Divergence
	Convection
	Streamfunctions
	Surface Winds
	Turbulence
	Upper Level Winds
	Vertical Wind Motion
	Vorticity
	Wind Chill
	Wind Shear
	Wind Stress
Clouds	
Clouds	Cloud Amount

Cloud Ceiling Cloud Condensation Nuclei Cloud Emissivity Cloud Forcing Cloud Height Cloud Ice Cloud Liquid Water Cloud Optical Thickness Cloud Precipitable Water Cloud Top Pressure Cloud Top Temperature Cloud Types Cloud Vertical Distribution Droplet Concentration/Size Fog Mesoscale Convective Complex Nucleation Acid Rain Precipitation Droplet Size Freezing Rain Hail Liquid Water Equivalent Precipitation Amount Precipitation Anomalies Precipitation Rate Rain Sleet Snow Radiation Budget AbsorptionAlbedoAnisotropy Atmospheric Emitted Radiation Atmospheric Heating Emissivity Heat Flux Longwave Radiation Incoming Shortwave Radiation Irradiance Net Radiation Optical Thickness Outgoing Longwave Radiation Radiative Flux Radiative Forcing Reflectance Scattering

Shortwave Radiation Solar Radiation Sunshine TransmittanceUltraviolet Radiation BIOSPHERE Aquatic Habitat Benthic Habitat Coastal Habitat Estuarine Habitat Lakes Pelagic Habitat Reef Habitat Rivers/Stream Habitat Saline Lakes **Ecological Dynamics** Adaptation BioaccumulationBioavailability Biogeochemical Cycles Bioluminescence Biomass Chemosynthesis Community Structure Competition ConsumptionDecomposition Diurnal Movements Dominance **Endangered Species** Excretion Extinction Feeding Habitat Fire Characteristics Fire Occurance Food-web Dynamics Herbivory Life History Migratory Rates/Routes Mutation MutualismNutrient Cycling Oxygen Demand Parasitism PhotosynthesisPopulation Dynamics Post-Breeding Predation

Primary Production Range Changes Respiration Scavenging Secondary Production Selection Succession Survival Symbiosis Toxicity Trophic Dynamics Fungi Biomass Molds Mushrooms Slime molds Sporozoans Yeast Microbiota AmoebaeBacteria Biomass Blue-Green Algae ChlorophyllCiliatesCoccolithophore Diatoms Flagellates Foraminifers Microalgae Microphyte Phytoplankton Pigments Plankton Protist Radiolarians ZooplanktonAgricultural Land Terrestrial Habitat Alpine/Tundra Beaches Caves Desert Dunes Forest Habitat Grassland IslandsMontane Habitat

Savanna Shrubland/Scrub Sinkholes Urban Land Wetlands Vegetation AlgaeBiomass Canopy Characteristics Carbon ChlorophyllConifers Crops Crown Deciduous Vegetation Domesticated Plants Dominant Species Exotic Vegetation FernsFlowering Plants $For est\ Composition/Structure$ Herbivory Importance Value Indigenous Vegetation Leaf Characteristics Lichens Litter Characteristics MacroalgaeMacrophyte Mosses Nitrogen Nutrients Phosphorus Photosynth. Active Radiation PhytoplanktonPigmentsPlant Characteristics Pollen Tree Rings Vegetation Cover Vegetation Index Vegetation Species Wetlands Estuarine Wetlands Lacustrine Wetlands MarineMarshes

	•	
		Palustrine Wetlands
		Peatlands
		Riparian Wetlands
		Swamps
	Zoology	Amphibians
		Anemones
		Arachnids
		Arthropods
		Biomass
		Birds
		Centipedes
		Corals
		Crustaceans
		Domesticated Animals
		Echinoderms
		Exotic Species
		Fish
		Flatworms
		Indigenous Species
		Insects
		Invertebrates
		Jellyfish
		Mammals
		Millipedes
		Molluscs
		Reptiles
		Roundworms
		Segmented worms
		Sponges
		Vertebrates
		Zooplankton
CRYOSPHERE	Snow/Ice	Ablation
		Avalanche
		Depth Hoar
		Freeze/Thaw
		Frost
		Glaciers
		Ice Depth/Thickness
		Ice Extent
		Ice Growth/Melt
		Ice Sheet Elevation
		Ice Sheets
		Ice Velocity
		Lake Ice
		Permafrost

River Ice Snow Cover Snow Depth Snow Energy Balance Snow Facies Snow Melt Snow Water Equivalent Snow/Ice Temperature Whiteout Sea Ice Brine Production Divergence Heat Flux Ice Age Ice Compactness Ice Concentration Ice Deformation Ice Depth/Thickness Ice Drift Ice Edges Ice Extent Ice Floes Ice Growth/Melt Ice Motion Ice Pack Ice Roughness Ice Temperature Ice Types Ice Velocity Icebergs Leads Polynyas **HUMAN DIMENSIONS** Attitudes, Preferences, Behavior Consumer Behavior Social Behavior Boundaries Administrative Divisions Political Divisions Surveys Environmental Effects Acid Deposition Agriculture Aquaculture Biomass Burning Contaminants DeforestationDesertification Eutrophication Food Production

Fossil Fuel Burning Gas Flaring Heavy Metals Industrial Emissions Industrialization Irrigation Mine Drainage Nuclear Radiation Oil Spill ReforestationRestoration Sewage UrbanizationWater Management Human Health Anatomical Parameters Diseases Physiological Parameters Public Health Vital Statistics Infrastructure Buildings Communications Cultural Features Electricity Pipelines TransportationHYDROSPHERE Ground Water Aquifers Discharge/Flow Dispersion Drainage Groundwater Chemistry Groundwater Quality Infiltration Land Subsidence Percolation Saltwater Intrusion Springs Water Table Ablation Snow/Ice Avalanche Depth Hoar Freeze/Thaw Frost GlaciersIce Depth/Thickness Ice Extent

Ice Growth/Melt Ice Sheet Elevation Ice Sheets Ice Velocity Lake Ice Permafrost River Ice Snow Cover Snow Depth Snow Energy Balance Snow Facies Snow Melt Snow Water Equivalent Snow/Ice Temperature Whiteout Surface Water Aquifer Recharge Carbon Dioxide Discharge/Flow Drainage Floods Hydropattern Hydroperiod InundationLakes Nitrous Oxide Rivers/Streams RunoffStage Height Stream Chemistry Total Surface Water Water Channels Water Depth Water Yield Wetlands Water Quality Acid Deposition Alkalinity Benthic Index Carcinogens ChlorophyllConductivity Contaminants Dissolved Gases Dissolved Solids HydrocarbonsInorganic Matter

Light Transmission Nitrogen Compounds Nutrients Organic Matter Oxygen рΗ Radioisotopes Suspended Solids Toxic Chemicals Trace Metals Turbidity Water Temperature LAND SURFACE Erosion/Sedimentation DegradationEntrainment Erosion Landslides Sedimentation Sediment Chemistry Sediment Composition Sediment Transport Stratigraphic Sequence Suspended Solids Weathering Land Temperature Land Heat Capacity Skin Temperature Land Surface Temperature Land Use/Land Cover Land Classes Land Cover Land Management Land Productivity Land Resources Land Tenure Soils Alkalinity Dendrification Rate Hydraulic Conductivity Organic Matter Permafrost Soil Absorption Soil Bulk Density Soil Chemistry Soil Color Soil Compaction Soil Consistence Soil Depth Soil Fertility

Soil Heat Budget Soil Horizons/Profile Soil Impedence Soil Mechanics Soil Moisture Soil Plasticity Soil Porosity Soil Productivity Soil Respiration Soil Structure Soil Temperature Soil Texture Soil Types Thermal Conductivity Surface Radiative Properties Emissivity Reflectance Thermal Properties Topography Contours Landforms Relief Surface Roughness Terrain Elevation **OCEANS** Bathymetry Water Depth Seafloor Topography Coastal Processes Barrier Islands Beaches Coastal Elevation Coral Reefs Deltas Dunes Erosion Estuaries Fjords Inlets Intertidal Zone Lagoons Local Subsidence Trends Longshore Currents Mangroves Marshes Rocky Coasts Saltwater Intrusion Sea Level Rise Sea Surface Height Sediment Transport

SedimentationShoals Shoreline Displacement Storm Surge Shorelines Tidal Height Marine Geophysics Abyssal Hills/Plains Benthic Heat Flow Continental Drift Continental Rises/Slopes Continental Shelves Fracture Zones Guyots Hydrothermal Vents Island Arcs Magnetic Anomalies Marine Gravity Field Marine Magnetics Mid-Ocean Ridges Ocean Plateaus/Ridges Rift Valleys Seafloor Spreading Seamounts Subduction Submarine Canyons Trenches Marine Sediments BioturbationCarbonate Sediments Diagenesis Evaporites Hydrogenous Sediments Particle Flux Sedimentation Sediment Composition Sediment Grain Size Sediment Transport Siliceous Sediments Stratigraphic Sequence Suspended Solids Terrigenous Sediments Turbidity Ocean Acoustics Acoustic Attenuation Acoustic Frequency Acoustic Reflectivity Acoustic Scattering

Acoustic Tomography Acoustic Velocity Ambient Noise Ocean Chemistry Alkalinity Ammonia Biogeochemical Cycles Biomedical Chemicals CarbonCarbon Dioxide Carbonate Chlorophyll Dissolved Gases Dissolved Solids HydrocarbonsInorganic Carbon Inorganic Matter Nitrate Nitric Acid Nitrite Nitrogen Nitrogen Dioxide Nitrous Oxide Nutrients Ocean Tracers Organic Carbon Organic Matter Oxygen рΗ Phosphate Pigments Radio carbonRadioisotopes Silicate Stable Isotopes Suspended Solids Trace Elements Ocean Circulation Advection Buoy Position Convection Diffusion Downwelling EddiesFronts Gyres Instability

Kinetic Energy Momentum Ocean Currents Ocean Mixed Layer Overturning Salt Transport Stability Thermohaline Circulation Turbulence Upwelling Vorticity Water Masses Wind-Driven Circulation Ocean Heat Budget Advection Bowen Ratio Condensation Conduction Convection Diffusion Evaporation Heat Flux Heating Rate Longwave Radiation Shortwave Radiation Ocean Optics Aphotic Zone Backscatter Bioluminescence Extinction Coefficients Fluorescence Gelbstoff Irradiance Light Attenuation Light Transmission Ocean Color Optical Depth Photic Zone Photosynth. Active Radiation Secchi Depth Turbidity Water Leaving Radiance Ocean Pressure Baroclinic Mode Barotropic Mode Ocean Pressure Sea Level Pressure Ocean Temperature Ocean Mixed Layer

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		Potential Temperature
		Sea Surface Temperature
		Water Temperature
		Thermocline
	Ocean Water Budget	Advection
		Convection
		Convergence/Divergence
		Diffusion
		Fresh Water Flux
	Ocean Waves	Fetch
		Internal Waves
		Sea State
		Seiches
		Significant Wave Height
		Surf Beat
		Swells
		Tsunamis
		Wave Speed/Direction
		Wave Frequency
		Wave Height
		Wave Period
		Wave Spectra
		Wave Length
		Wave Types
		Wind Waves
	Ocean Winds	Convergence/Divergence
		Surface Winds
		Turbulence
		Vertical Wind Motion
		Vorticity
		Wind Chill
		Wind Shear
		Wind Stress
	Salinity/Density	Conductivity
		Density
		Desalinization
		Halocline
		Potential Density
		Pycnocline
		Salinity
		Salt Transport
	Sea Ice	Brine Production
		Divergence
		Heat Flux
		Ice Age
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Ice Compactness Ice Concentration Ice Deformation Ice Depth/Thickness Ice Drift Ice Edges Ice Extent Ice Floes Ice Growth/Melt Ice Motion Ice Pack Ice Roughness Ice Temperature Ice Types Ice Velocity Icebergs Leads PolynyasSea Surface Height Sea Surface Height Tides Storm Surge Tidal Components Tidal Currents Tidal Height Tidal Range PALEOCLIMATEGeologic Time Cambrian Carboniferous Cenozoic Cretaceous Devonian Eocene Holocene Jurassic Mesozoic Miocene Oligocene Ordovician Paleocene Paleozoic Permian Pleistocene Pliocene Precambrian Quaternary Silurian Tertiary

Triassic Ice Core Records Carbon Dioxide Ice Core Air Bubbles Ions Isotopes Methane Nitrous Oxide Volcanic Deposits Land Records Cave Deposits GlaciationIsotopes Loess Macrofossils Microfossils Paleomagnetic Data Paleosols Paleovegetation Pollen Radiocarbon Stratigraphic Sequence Tree Rings Volcanic Deposits Ocean/Lake Records Coral Deposits Isotopes Lake Levels Macrofossils MicrofossilsOxygen Isotopes Paleomagnetic Data Radiocarbon Sediments Stratigraphic Sequence Varve Deposits RADIANCE OR IMAGERY Gamma Ray Gamma Ray Infrared Wavelengths Brightness Temperature Infrared Flux Infrared Imagery Reflected Infrared Sensor Counts Thermal Infrared Microwave Antenna Temperature Brightness Temperature Microwave Imagery Sensor Counts Doppler Speed

Radar Backscatter Radar Cross-Section Radar Imagery Radar Reflectivity Sensor Counts Sigma Naught Radio Wave Radio Wave Ultraviolet Wavelengths Sensor Counts Ultraviolet Flux Visible Wavelengths Sensor Counts Visible Flux Visible Imagery X-Ray X-Ray Engineering/Sensor Quantities Dome Temperature Phase and Amplitude Sink Temperature Ultraviolet Sensor Temperature SOLAR PHYSICS Solar Activity Corona Holes Coronal Properties Filaments Solar Active Regions Solar Events Solar Flares Solar Imagery Solar Oscillations Solar Prominences Sunspots Synoptic Maps Velocity Fields Solar Energetic Particles Alpha Particles Particle Composition Particle Density Differential Flux Particle Distribution Functions Electron Flux Energetic Particles Energy Deposition Particle Flux Heavy Ions Proton Flux Particle Speed Particle Temperature SOLID EARTH Geochemistry Chemical Weathering Fixation Hydration

	Ion Exchange
	Isotopes
	Oxidation/Reduction
Geodetics/Gravity	Control Surveys
	Crustal Motion
	Gravity
	Ocean Crust Deformation
	Polar Motion
	Reference Systems
	Rotational Variations
	Satellite Orbits
Geomagnetism	Geomagnetic Forecasts
	Geomagnetic Indicies
	Geomagnetic Induction
	Magnetic Anomalies
	Magnetic Declination
	Magnetic Inclination
	Magnetic Intensity
	Paleomagnetism
	Reference Fields
Geophysical Fields	Electric Field
	Gravity Field
	Magnetic Field
Geothermal	Geothermal Energy
	Geothermal Temperature
Natural Resources	Coal
	Metals
	Natural Gas
	Non-Metallic Minerals
	Petroleum
	Radioactive Elements
Rocks/Minerals	Age Determinations
	Bedrock Lithology
	Crystals
	Igneous Rocks
	Metamorphic Rocks
	Meteorites
	Minerals
	Sedimentary Rocks
Seismology	Earthquake Dynamics
	Earthquake Predictions
	Earthquake Occurrences
	Seismic Body Waves
	Seismic Profile
	Seismic Surface Waves
	Semme surjuce waves

Tectonics	Continental Tectonics
	Convergence/Divergence
	Core Processes
	Crustal Motion
	Faults
	Folds
	Isostatic Rebound
	Neotectonics
	Stratigraphic Sequence
	Stress
Volcanoes	Eruption Dynamics
	Lava
	Magma
	Pyroclastics
	Volcanic Ash/Dust
	Volcanic Gases

3.45 ThemeKeywordsThesaurus

Description: Reference to the thesaurus used for the theme keywords.

Sources: CIP defined

Default Valid:

Valids	
GCMD Parameter Keywords	

3.46 UpdateFrequency

Description: The frequency with which changes and additions are made to the data set after the initial data set is completed.

Sources: ECS

Valids	Description
Continually	The collection is updated more frequently than once a day.
Daily	The collection is updated once per day, every day.
Weekly	The collection is updated once per week.
Monthly	The collection is updated once per calendar month.
Annually	The collection is updated once per year; the first date of update is usually one year after the first date of receipt of data from this

Valids	Description
	collection's source.
Unknown	
As Needed	The collection is updated as determined by the Principal Investigator or according to on demand requests from end users
Irregular	The collection is updated on an unscheduled but periodic basis.
None Planned	The collection is complete and therefore will not be updated further.